



SUCCESSFUL SEARCHING

for 21st century scholars

Dra. Dolores Alemany Martínez

Information Management in Communication

Degree of Advertising and Public Relations

University of Alicante

Department of Communication and Social Psychology



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Preface

This material is especially meant for students that are in their 3rd year of the Undergraduate Degree of Advertising and Public Relations and will have to defend their TFGs (final year projects) shortly. It has been inspired by prestigious manuals (Galdón López, 2002; Giménez Toledo, 2004; Cordon García, 2012) that have been recommended as important bibliographical references when teaching the subject “Documentación Informativa” in the old degree (2000—2012). The subject, being now obligatory in *the European Higher Education Area* (EHEA), changed its name to “Information Management in Communication” and it is, as I said before, crucial for all students taking their final year projects (TFGs).

I would like to thank people who have helped me make this project true. Many thanks to Juan Luis Nicolau, Dean of the Faculty of Economics of the University of Alicante that suggested that I write this material; to the colleagues I share the subject with, Alejandra Hernández (coordinator and responsible for the planning, timing and main organisation of the Study Plan) and Alba M^a Martínez Sala; to Ana Rosa Candela Hidalgo, Head of the *PuntBiu* of the University of Alicante; to M^a José Morote, technician from the SIBYD unit (Bibliographic and Documentary Information service), to Felipe Cervantes and Joan J. Cordech, from the Service of Languages and Culture of the University of Alicante, who kindly helped me in the final steps and, last but not least, to Toni Belmonte, top graphic designer who designed a charming logo for the subject.

This compilation would like to be a reference tool to let users know loads of resources and also help them find those resources that they could remember seeing somewhere, but can't remember where. Updated summaries and reviews of information resources have been provided, so they can inspire students and future researchers to check for themselves the usefulness of the sites. The information resources that are shown in this paper are reasonably stable and there is some guarantee that URLs will stay where they are. I have made every possible effort to ensure that the information contained and presented to you is accurate at the time of printing.

All in all, it is a fact that a work such as this can never be truly complete. Every day more resources and initiatives are being created on the Internet. The main aim when revising and describing contents was not only to teach students of Advertising and Public Relations how to use the Internet in a critical way, but also to help them identify the resources of true interest that the Internet might have for them.

Have a great surfing experience!



Introduction

Live as if you were to die tomorrow. Learn as if you were to live forever. Mahatma Gandhi

The Internet is currently present everywhere. The challenge of using the Internet effectively is not in finding information. The challenge is in finding information that you are interested in, while avoiding the rest. Few tangible components can be encountered on the Internet which help us know where we are and what is going on. When searching across the Internet, most of us still find difficulty in avoiding distraction, and even the most expert *Internet-ers* get frustrated when things are not as they expected to be. It takes time to develop sufficient network navigation skills to find what we need, what we want, while not getting distracted by loads of things that are of no interest or whose quality does not fit the minimum standards. Besides, network addresses change, new services and projects emerge, and everything on the Net seems to keep increasingly moving and changing.

Yet, paradoxically, there is another aspect to be highlighted, which is the toxic *Googlepoly* of information services, especially in Europe. Figures seem alarmingly shocking: 90% of Internet searches in Europe are controlled by Google¹.

If it is also taken into account the fact that web 2.0, web 3.0 and all innovations in the web —regarding information transfer and users' interaction— that have altered the traditional panorama of information sources and retrieval methods associated to them, then, it is more necessary than ever to set where we are from the very beginning just to know where we are heading for.

History always brings perspective, and getting a clear idea of the history of books, libraries, catalogues and the first archives is always enriching. Outlining the typology of information resources we can come across and knowing all the steps in the process of managing documentary information can certainly be illustrative and essential in understanding many things happening in Information Management. What is Information Science²? What is the use of Documentation? It is a geographical, language distinction, where concepts and terminology are seen from a different yet so

¹ Abellán, L. & Elola, J. "Omnigoogole", *El País*, 3 Oct 2014, available at http://tecnologia.elpais.com/tecnologia/2014/10/03/actualidad/1412364700_610737.html [accessed 7//10/2014]

² Borko, H. Information Science: What is it? *American Documentation* Volume 19, Issue 1, pages 3–5, January 1968, article first published online 19April2007,



close scope: the Americans understood the immaterial essence of Information — hence, the abstract uncountable stuff that can only be handled by means of technology— whereas the Europeans made emphasis on books, written texts and documents.

There are many retrieval strategies that can be learnt from the use of controlled vocabularies and this is why enough attention has been paid to becoming familiar with databases and search engines' several ways of operating.

Open Access has meant a great impact on the work of scholars, librarians and educators so far. Time will tell about the successful and/or eventual outcome of this phenomenon, which is opening up the world's scholarly literature to all the citizens of the world.

As Cavaliere states (2005: 79), "...the progressive reduction of the market of printed books, on a long-term basis, is a fact difficult to be questioned". Since eBooks are definitely here to stay, I found it sensible to explore what the future of reading looks like.

The second part of this study is a recollection of resources especially meant for students and professionals in the area of Advertising and Public Relations. Of course there could be many more, but this seemed to me a relevant account of them. The idea is that students customise their own list of resources, and help contribute to the critical understanding of websites, the things they can offer to us, what can be found in them, where to search when you are trying to find specific information on a topic. This material ends up with a special mention to *Wikipedia*, which has become our best ally for instant knowledge about something. From our smartphones, we can check a date and make sure it is like that, or see a definition or get to know the translation of a specific word. Academic prejudices against *Wikipedia* are still strong; that's the reason why I think the right use of *Wikipedia* should be encouraged and fostered, since it is with us, same as *Google*.

Whenever I think about the way research was done at the end of the 20th century³ and the way things are changing in the early 21st century, I think I have been a lucky person who has seen in wonder and astonishment the way a global and big world can be explored and kept on a screen.

Finally, I would like to express my hope that the contents in this manual help others to get to know much more about such an innovative and fascinating area as Information Management is.

Dolores Alemany Martínez
9 October 2014

³ My PHD was written and presented in 1993. I had a computer but there was no Internet connection in those times; most of the research was done with thousands of photocopies, loads of cards, microfilms, and scientific literature revised at the Library of the University of London, UK, and the National Library in Madrid.



Part I: Documentation science as a field of study: Information sources and documentary search

I. OVERLOADED WITH INFORMATION

1. Preliminary Considerations

The 21st century world is moving fast within a new era of globalisation. In today's society, everyday activities involve, whether we like it or not, the use of the technological world. An increasing number of people connect to the Internet to conduct their day-to-day activities. We have become active users, participating in the Digital and Information Age.

We are PROSUMERS (a term coined by futurologist Alvin Toffler in 1980), we produce as well as consume the data accessed on websites. E-mail communication is a major source of information overload. Professionals have to keep up with loads of incoming messages from unsolicited senders (spam), and also to contend with e-mail attachments that sometimes are presentations, media files or reports which take time to be checked. But apart from email spam, notifications and attached files, there is a new kind of information overload in the form of instant messages produced by social media occurring on sites like Facebook, Twitter or WhatsApp.

Information overload is therefore perceived as **distracting** – Information technology exacerbates the number of *disruptions*/interruptions that occur in the work environment. A former study already in 1997 showed that companies in the US were *disrupted* more than six times an hour because of the numbers of e-mails which were being received.

This never-ending *flow of information* has created a way of living in which we are increasingly in danger of **becoming dependent** on access to information. Besides, we get information overload almost instantaneously, without knowing the validity of the content and therefore we are under the **risk of misinformation**.

The term "Information overload" was firstly used by Alvin Toffler in a 1970s bestseller, *Future Shock*. It refers to the difficulty that can be caused by the presence of too much information. When this happens, a person can find it difficult **to understand an issue** and also, and more importantly, to take decisions. The amount of input data exceeds the processing capacity of humans, and when this happens, it is likely that **a reduction in decision quality** will occur (= greater interruption in decision making and poor decisions being made)

Information overload has also been described with other peculiar terms such as INFOBESITY, INFOXICATION, DATA SMOG, INFORMATION GLUT...

☺ The New Yorker Alvin Toffler (b. 1928) is "a must" when discussing digital, technological and communication revolution nowadays. Pick up **one** of the



following quotes by him and make some comments to the further implications of the ideas in them:

a - "Society needs people who take care of the elderly and who know how to be compassionate and honest. Society needs people who work in hospitals. Society needs all kinds of skills that are not just cognitive; they're emotional, they're affectional. You can't run the society on data and computers alone."¹

b - "Tomorrow's illiterate will not be the man who can't read; he will be the man who has not learned how to learn."

c - "The new education must teach the individual how to classify and reclassify information, how to evaluate its veracity, how to change categories when necessary, how to move from the concrete to the abstract and back, how to look at problems from a new direction — how to teach himself."

2. Documentation science as a field of study.

Documentation science, or **documentation studies**, is the study of the recording and retrieval of information.

The origin of the term "documentation" as a field of study is to prove something by means of a document, especially within legal studies. A comprehensive definition of Documentation provided by the Special Libraries Association would be the following:

"Documentation is the art of document reproduction, document distribution and document utilization" (cf. Grosch 1972, p.264)⁴

Documentation science gradually developed into the broader field of Information Science.

In the United States, 1968 was a landmark year in the transition from documentation science to information science. This year the American Documentation Institute became the American Society for Information Science and Technology. Harold Borko⁵ introduced the term Information Science to readers of the journal *American Documentation*. The term Documentation is still much used in European/francophone countries as a synonym of Information Science (used in English-speaking countries mostly).

One potential explanation is that these countries made a clear division of the tasks performed by libraries and documentation centres, and the fact that the personnel/staff employed at each kind of institution have different educational backgrounds. Documentation science professionals are called documentalists.

To bear in mind a clear demarcation between Documentation and Library Science or Bibliography, it should be taken into account that the librarians' literature searching is usually limited to the monographic literature catalogued by the library itself. Documentalists must go further since technical literature is very comprehensive. It is not only searching literature but

⁴ Grosch, A. N. (1972). Documentation Division, SLA [Special Libraries Association]. I: *Encyclopedia of Library and Information Science*. Ed by Allen Kent & Harold Lancour. New York: Marcel Dekker, Inc. (Vol. 7, s. 264 - 269).

⁵ Harold Borko is the author of books such as *Automated Language Processing* and *Indexing Concepts and Methods*.



also collecting it, processing the material in order to make it more available and accessible to the users who may need it. Documentalists must have qualifications in bibliography as well as subject knowledge in a specific domain so they can handle information resources in a specific field.

Information, as we know it today, includes both electronic and physical information. Information users in any professional area must be capable of managing information regardless of source or format (data, paper documents, electronic documents, audio, video, etc.) which are being delivered through multiple channels including smartphones and web interfaces.

Information Management (IM) is the collection and management of information from one or more sources and the distribution of that information to different audiences that have a right to that information. Management means the organisation of and control over the structure, processing and delivery of information.

A modern documentalst, nowadays, is a kind of librarian, trained in Documentation Science and specialised in assisting researchers in their search for scientific and technical documentation. With the development of bibliographical databases, documentalists became professionals helping users in a specialised field of study or research. The terms information specialist or information professional also replace the term documentalst.

Learning the basics of Documentation and Information Science can help students, researchers and professionals improve their documentation skills. **Information Literacy** can be understood as the ability to identify, locate, evaluate and use the information for an issue or a problem at hand in an efficient way. Information Literacy is emerging as a distinct skill necessary to one's social and economic well-being in an increasingly complex information society. Governments and educational institutions around the world are challenging education systems to focus people's attention on literacy, which includes traditional literacy, computer literacy, library skills and critical thinking skills.

☺ The UNESCO (United Nations Educational, Scientific and Cultural Organization) brought together two fields that had been traditionally seen as separate and distinct: **Media Literacy and Information Literacy**. Explore the following prompts

- The importance of MIL (Media Information Literacy) in the education process – training teachers
- Empowerment of people through MIL – Freedom of expression and information

After visiting the UNESCO website on this topic, explore the prompts mentioned above: <http://www.unesco.org/new/en/communication-and-information/media-development/media-literacy/mil-as-composite-concept/>

☺ **The Moscow Declaration on Media and Information Literacy** was a major outcome of the international conference organised by UNESCO and the IFLA (International Federation of Library Associations and Institutions) held in June, 2012 in Moscow. – What was the main aim of the conference? How many countries attended the conference? Download the pdf document and revise the 12 specific recommendations on the concept of MIL that are shown in the graphic below to make sure that you can understand the implications of them.



[Image source: <http://blogs.worldbank.org/publicsphere/12-recommendations-building-media-and-information-literate-knowledge-societies>]

3. A Brief History of Documentation.

The interest in safeguarding documents exists since writing exists, since men experienced the need to express their activities and keep record and written testimony as memories of their own existence.

Human beings started recording information thousands of years ago. However, it is difficult to identify exactly when recorded knowledge became systematic and meant some sort of organisation for further use.

3.1. Antiquity

3.1.1. Asia Minor: 1900-1200 BC – “Catalogues”

Around 3000 BC, people began living in the fertile **regions of Egypt and Mesopotamia** developing the cornerstone of civilisation, writing. The Sumerians used a wooden stylus to



inscribe simple shapes and lines into moist clay. This form of writing became known as cuneiform. Because of their durability, **clay tablets** were also used in other areas including Persia, Asia Minor, and Syria. The use of clay tablets continued for a couple thousand years.

The tablets were used to keep records of documented transactions, inventories and government regulations and scribes were responsible for these tasks. Scribe schools flourished throughout Sumer.

The Ebla Palace archives (dating from around 2500-2250 BC) is one of the first amazing attempts to catalogue a collection of documents. Ebla was a major trade centre in the area of current Syria. Excavations in the area by Italian archaeologists discovered around 1974 a collection of about 2,000 clay tablets in Sumerian cuneiform writing. The Ebla archive consisted of two small rooms. One of the rooms contained government and economic records, whereas the other room held literary texts (myths, hymns, rituals, epic narratives and so on). Researchers were able to reconstruct the organisation of the materials and found that the tablets had been **categorised by subject**. The tablets retained their clay tags for reference. Tablets were stored in wooden shelves, upright with the front facing outward and leaning backward at an angle so the incipit could be seen. They were separated by small pieces of baked clay. The **incipit** is the first few words of a text. Before the use of titles, these were used to identify a work. Catalogues of documents were kept by making special catalogue tablets which contained the incipits of a collection of tablets.

The Hattusa Palace archives (Assyrian trading point for Mesopotamia between 1900 BC and 1700 BC, present Turkey) contained 3,000 clay tablets in storage rooms. Some of the tablets contained a colophon, which is similar to the title page of today's books, and it is inscribed on the back surface.

According to Casson (2001, 5)⁶:

...each colophon begins with the number of the tablet it is on. This was of vital importance, for, though the scribes wrote on both faces of the tablet, and often write very small, many works required more than one, even as works today require more than one page. But tablets, unlike pages, could not be bound; the best that could be done was to keep them together, either in stacks on top of each other or on edge alongside each other, both of which arrangements left ample opportunity for individual tablets to get misplaced or lost... Not all tablets had colophons. Where they were present, they unquestionably were of great help to users of a collection: a glance at a colophon immediately revealed a tablet's contents and the part of the work it represented.

The catalogues become more sophisticated since 1300 BC, containing detailed bibliographical information. According to Casson (2001, 5-6), "each entry begins by giving the number of tablets that made up the work being recorded, just as modern catalogues give the number of volumes in a multi-volume publication. Then the entry identifies the work itself by giving the title, which may take the form of citing its first line, or by giving a capsule description of the contents. Then it tells whether the tablet marked the end of the work or not. At times the entry includes the name of the author or authors, or adds other useful information."

⁶ Casson, Lionel (2001). *Libraries of the Ancient World*. Yale University.



3.1.2. The Library of Alexandria – 3rd century BC

The Library of Alexandria, in Egypt, was the largest of the most significant libraries of the ancient world. It functioned as a major centre of scholarship from its construction in the 3rd century BC under the patronage of the Ptolemaic dynasty until the Roman conquest of Egypt in 30 BC.

The library held between 400,000 and 700,000 scrolls with rooms for acquisitions and cataloguing. The mission of the library was to **obtain a copy of every book ever written**, to collect all the books of the world from cookbooks and poetry to the epics. Any work not written in Greek was translated. The library was directed by a series of chief librarians. Appointed by the royal court and later the emperor, the library director was in charge of collection development, staffing, and maintenance. In addition, he was often called upon as a tutor for the royal children as well as a priest.

Callimachus of Cyrene was never the chief librarian, but he is credited with designing **the first cataloguing system based on alphabetical subject classification**. Considered to be the first library cataloguer, his system was used throughout the Roman Empire. He developed a system based on the major areas of literature, then within these areas, he alphabetised taking into account the author's name. The organisation included six main divisions of poetry (epic, elegy, iambics, melodrama, tragedy, and comedy) and five in prose (history, rhetoric, philosophy, medicine, and law) (Milkaw & Leyh, 1963)⁷.

In 48 BC, the armies of Julius Caesar caused fires to spread through the city. Also, in 272 AD Emperor Aurelian attacked the city and badly damaged the library. Religious riots in 391 AD caused damage to the pagan temples and library, and more of the library was destroyed when **violence broke out between Jews and Christians in 415 AD**.

3.1.3. Public Libraries – 27 AD

Julius Caesar began the process of maintaining a large library to collect books, but he died in 44 AD before the work had begun. The two main motives behind Caesar's plan, according to Kesting were to reduce all existing codes of civil law to a more simplified form and "to throw open to public use as many libraries as possible, holding both Greek and Latin literature" (Kesting, 1978: 8)⁸

There were a total of twenty-six public libraries in Rome that were intended for reading and also as a meeting place for literate men. Most collections of the Roman libraries weren't large and consisted of both old and new works. The libraries had a standard organisational structure. The head of the staff at the library was called the librarian (*bibliothecarius*) and staff consisted of literate slaves and freemen. Educated slaves were tasked with copying manuscripts.

☺ Benjamin Franklin was a successful printer and intellectual in Philadelphia. From an early age, he was a man on the move. He observed, "Being ignorant is

⁷ Milkaw, Fritz & Leyh, Georg (1963). *Ancient Greek and Roman Libraries*. Catholic University of America. Translated by Mary Helene Pages.

⁸ Kesting, J. G. (May 17, 1978). *Qumram and the Quest for Modern Librarianship*. University of Cape Town. New Series No. 52.



not so much a shame, as being unwilling to learn". Eager to learn new things and also willing to study with others, Franklin and several friends established a "club of mutual improvement" called the *Junto* in 1727, which met in a Philadelphia alehouse each Friday evening. He developed a plan for the first public library in the USA. Can you trace back this plan, first find information and then discuss with others this plan and study the importance of such an initiative in a democratic society?

3.2. Middle Ages

3.2.1. Monasteries and universities as book custodians – 476 AD - 14th–15th centuries

In the history of Europe, the Middle Ages last from the 5th to the 15th century. It is a long period which began with the collapse of the Western Roman Empire and merged into the Renaissance.

The rise of the monasteries was an increasing phenomenon happening during those times. The work of copying manuscripts, for the Romans, was often given to educated slaves. However, for the Benedictine Order it was a labour of love. Benedictine monks developed a focus on reading and encouraged the safe-keeping of books.

The **Book of Kells** can be seen at Trinity College Library (Dublin) and it is an illuminated manuscript in Latin. It is one of the finest and most famous manuscripts among all that were produced from the late 6th through the early 9th centuries in monasteries in Ireland, Scotland and England. It is a Gospel book, containing the New Testament with several texts and tables. The illustrations and ornamentations of this sacred Book surpass other Gospel books for their complexity and extravagance, combining Christian iconography, figures of humans, animals, mythical beasts, Celtic knots and interlacing patterns in vibrant colours.

During the 12th century, university libraries emerged. Cities developed universities to attract and keep skilled young people. When the Benedictine monasteries and Christian cathedral schools began to focus on their own communities, universities were established to provide education for the masses. At first, these "universitas" were autonomous corporations of students and masters. By the 14th century, they were self-regulating communities of students and teachers sanctioned by some authority.

University libraries were different from monastery collections. Mass-produced books made of cheap paper were needed, with more modest and portable bindings. Book contents included a table of contents, chapters, and a subject index. Even the Bible was divided into chapters and verses. Reference tools were provided such as underlined quotations, to focus the reader's attention on authority. Most university texts were written in Latin.

3.2.2. Gutenberg's invention of the printing press – mid-1400s

Johannes Gutenberg was the first European to use movable type printing, with marked improvement on the handwritten manuscript, the existing method of book production in Europe, and upon woodblock printing. The invention of the printing press revolutionised European book-making. By the end of the 1400s, printing technology was rapidly spreading



throughout the work making access to books cost-effective and the expansion of libraries possible.

Gutenberg's masterpiece, the Gutenberg Bible (also known as **the 42-line Bible**), has been acclaimed for its technical as well as for its high aesthetic quality.

Although the term wasn't used until the 17th century, **incunabula** is the word used to describe the first books printed with movable type during the 15th century.

The 42-line bible consists of two volumes with a total of 1,282 pages. For this bible, Gutenberg cast 290 different shapes. Of the 180 copies, 48 remain in existence. It is one of the most beautifully printed books of the world.

The invention of movable-type printing in the mid-1400s marked the beginning of a new era for books and for libraries.

3.3. Early Modern Period

3.3.1. 17th century – first scientific journal – Journal des Savants

The *Journal des sçavants* (later renamed *Journal des savants*) was the earliest academic journal published in Europe. The first 12-page issue appeared in January 1665 and contained obituaries of famous men, church history and some legal reports. Shortly afterwards, in March 1665, the *Philosophical Transactions of the Royal Society* also appeared.

The birth of the scientific journals 350 years ago helped to the advancement of science. Nowadays, with the advent of the Internet, journals are the optimal means for Research Communication. There are thousands of scientific journals in publication in the world, which provide material for academic research and study. Some of them are electronic journals (aka ejournals or e-journals), online versions of printed journals, formatted approximately like journal articles in traditional printed journals. Some electronic journals are online-only journals. Some of them are online versions of printed journals, and some consist of the online equivalent of a printed journal, and can even contain additional media material.

☺ You can browse the *Revista Mediterránea de Comunicación* (Mediterranean Journal of Communication) <http://www.mediterranea-comunicacion.org/Mediterranea/index> to get an idea of what an electronic journal is like. It started in 2010 under the supervision of professors and researchers of the University of Alicante in the field of Social Studies, containing interesting articles and book reviews in the area of Advertising and Communication.

3.4. Late Modern Period

3.4.1. Documentation as a scientific field of study

The term DOCUMENTATION was a neologism coined by Paul OTLET to designate what today is considered Information Storage and Retrieval. The *Traité de Documentation* (1934), written by Otlet, is considered as one of the first information science textbooks and Paul Otlet is regarded as the progenitor of Information Science (Rayward, 1997).



3.4.2. The Universal Bibliographic Repertory

Paul Otlet (1868–1944) and Henri La Fontaine (1854–1943) were both Belgian lawyers and peace activists. In 1895, they founded the International Institute of Bibliography IIB, later on FID (Federation for Information and Documentation). One of the main aims with IIB/FID was to establish a Universal Bibliographic Repertory. This Repertory was meant to be a new form of information access tool that would allow people to update more rapidly and more efficiently to worldwide information. The Universal Bibliographic Repertory aimed at providing information about the publications of all times, all countries and all subjects. Unlike the catalogues of the libraries, the RBU (Repertoire Bibliographique Universel) gave information about the specific work that can be found in all places of deposit worldwide rather than about the books located in one specific place.

It was elaborated from 1895 to the late 1930s and it consisted of movable cards, classified according to the UDC. By the end of 1895, it had grown to 400,000 entries; later it would reach over 15 million. In 1896, Otlet set up a fee-based service to answer questions by mail, by sending the requesters copies of the relevant index cards for each query. The service was incredibly similar to the service a search engine provides. By 1912, this service responded to over 1,500 queries a year. Users of the service were even warned if their query was likely to produce more than 50 results per search. Otlet envisioned a copy of the RBU in each major city around the world. The master copy would be held in Brussels. At various times between 1900 and 1914, attempts were made to send full copies of the RBU to cities such as Paris, Washington D.C. and Rio de Janeiro. However, there were many difficulties in copying and also transporting the hundreds of thousands of cards. 8 million cards were written and classified in file cabinets. Each card was dedicated to the bibliographic information of only one work.

☺ The Mundaneum was an institution created in 1910 by Paul Otlet and Henri la Fontaine, aiming at gathering together all the world's knowledge. Some consider this project as a forerunner of the Internet (or, perhaps more appropriately, of systematic knowledge projects such as Wikipedia and WolframAlpha). Otlet himself had dreams that one day, somehow, all the information he collected could be accessed by people from the comfort of their own homes.

The Mundaneum was originally housed at the Palais du Cinquantenaire in Brussels (Belgium). When Nazi Germany invaded Belgium in 1940, the Mundaneum was replaced with an exhibit of Third Reich art and some material was lost. In 1998, the Mundaneum was relocated to a converted 1930s department store in Mons, Wallonia, where you can visit the existing museum and see the drawers of bibliographic index cards. You can visit the official website of the Mundaneum museum at <http://www.mundaneum.org/en> and do the virtual tour.

3.4.3. *Traité de documentation: le livre sur le livre, théorie et pratique* (1934)

In 1934, the *Traité de documentation*, a book written by Paul Otlet, was first published. This book is considered a landmark in the history of Documentation and Information Science, because in some ways it predicts the rise of the World Wide Web and search engines.



3.4.4. Ortega y Gasset “The Mission of the Librarian” (1934)

In 1934, José Ortega y Gasset talked about the mission of the librarian in his address to the International Congress of Bibliographers and Librarians in Paris. He concluded by saying that the librarian of the future should function as a filter between the reader and the torrent of books. If one thinks of a book as a symbol for all information, the mission of librarians has not changed in present times, since the modern librarian is an intermediary between all the information sources available online in different formats and the users of information with different needs. It is just that technology has changed the world of libraries. According to Ortega, a librarian must embrace continuous learning not only of technology but also new frames of reference and paradigms.

The world of libraries and librarians has changed dramatically in the 21st century. In addition to knowledge of different subjects and interpersonal ability, librarians must now possess considerable technical skills. Accordingly, all these skills would be necessary to all of us as everyday information users in order to succeed not only in academic goals.

4. Information Sources: Concept and Typology

Information Management is the collection and management of information. Information, as we know it today, includes both electronic and physical information. When dealing with Information Management in Communication, the main sources of information we can come across are statistics and data, paper documents, electronic documents, audio, video, etc. Also, we need to become familiar with other types of sources of information that can help us to do research, such as books and libraries, scholarly journal articles, magazine and newspaper articles, websites, databases and so on.

An information source is anything that might inform or provide knowledge about something. They vary according to the context we are dealing with: they may be observations, people, documents, organisations, speeches or interviews, etc.

Information sources can be considered from different scopes:

Institutional sources of information are those records produced by organisations in the course of their everyday operations. These are used to document the activities, transactions, and functions of the organisation. Some examples of types of organisational records might be reports, meeting minutes, e-mails, memos, publicity materials, and internal publications like newsletters.

Personal information sources can help to gather information from individuals, whether scholars or experts, when doing research.

Documents are primarily sources of information in our western culture. Therefore, documents are the main documentation sources on many occasions and are known as References.

The most common classification of the different sources of information takes into account the degree of originality and the reference of the source. There is the distinction between primary, secondary and tertiary sources.



4.1. Primary information sources

Primary sources are original materials, first-hand information or data. They have not been filtered through interpretation or evaluation. They are usually the first formal appearance of results in physical, print or electronic format. Researchers use primary sources to look for direct evidence and information in order to better understand fields of study (family history, legal research, literary analysis or marketing).

Some examples of primary information sources are: original documents (i.e. birth certificate, will, marriage licence, trial transcript), diaries, letters, experiments, personal correspondence, Internet communications on e-mail, speeches, photographs, interviews, annual reports of an organisation, patents, survey research (e.g., market surveys, public opinion polls), video recordings (e.g. television programs), works of art, paintings, poems, etc.

4.2. Secondary information sources

Secondary sources are not as clearly defined as primary sources. Generally, they are interpretations and evaluations of primary sources. They are not evidence, but rather commentary on and discussion of evidence. A secondary information source analyses, interprets, or discusses information about a primary information source. Secondary sources are subsequent to what they describe, as they are produced at some point after a primary information source appears. Papers written by students typically contain mostly secondary sources. Secondary sources may have pictures, quotes or graphics of primary sources in them. Some types of secondary sources include textbooks, biographies, magazine articles, book reviews, dissertations⁹, abstracts, journal articles, and monographs.

☺ Can you understand and classify the following materials as primary or secondary sources of information?

A - A history textbook

B - The Constitution of Canada

C - *The Diary of Anne Frank*

D - Weavings and pottery from native Americans

E - A book about the effects of WWI

F - A journal article reporting new research or findings

G - A journal/magazine article which interprets or reviews previous findings

H - Plato's *Republic*

Key – A (secondary), B (primary – Canadian History), C (primary, the experiences of a Jewish family during WWII), D (primary), E (secondary), F (primary), G (secondary), H (primary, it describes the situation of women in Ancient Greece)

4.3. Tertiary information sources

A tertiary information source lists, compiles, or indexes primary and secondary information sources. These sources are most often used to look up facts or to get a general idea about something. Some examples of tertiary information sources are almanacs, chronologies, directories, manuals, handbooks, guidebooks, indexes and statistics.

⁹ **DISSERTATIONS:** Doctorate level dissertations are sources of original research, and they can usually be found at the university at which they were completed.



The specific types of primary, secondary, and tertiary information sources you might use when writing a paper depend upon the subject of your paper. For example, if you were writing about the Civil War, you might use a Civil War soldier's diary as a primary source, a book about the Civil War as a secondary source, and a list of Civil War battle sites as a tertiary source.

The distinctions between primary, secondary, and tertiary sources can be ambiguous. An individual document may be a primary source in one context and a secondary source in another. Encyclopedias are typically considered tertiary sources, but a study of how encyclopedias have changed on the Internet would use them as primary sources.

5. The process of managing documentary information

5.1. Concept.

This process refers to the set of operations which have been performed on documents so that they can be easily available when any user may need them. It is a way of having control on the million documents we are surrounded by so we can locate the one that we need in every moment, context or circumstance.

5.2. Stages

5.2.1. Entry

Whenever there is a new item of information (whether a document, a journal article, a monograph...) the first state in processing it is the entry. Firstly, there is previous research and the location of all other items of information related to the same subject.

Then, the most relevant ones according to their value and interest are selected, which means some expurgation of library materials or sources takes place.

Libraries are also responsible for an important step in the entry of new materials, which is acquisition, both physical and digital, by means of subscriptions, leases, donations, exchanges, and so on.

Digitally stored information is commonly referred to as data. **Recording** information is the process of capturing data and translating information into a recording format store on some storage medium.

5.2.2. Processing information

Data processing are the operations performed on a given set of data to extract the required information so the computer can store, update, rearrange or print out them.

5.2.2.1. Formal analysis:

5.2.2.1.1. Bibliographical description

Although the etymology of the term is related to the concept of "book", it is commonly used to refer to the process of describing documents and also other published and non-published formats such as photographs or moving images. Bibliographical description tries to emphasise



the transcription of information found in the materials being described. Steve Hensen (2003)¹⁰ drew an interesting distinction between bibliographical and archival description: the former relies more on formal presentation of elements, the latter more on the supplying of descriptive data.

In Library and Information Science, **cataloguing** (or cataloging, American English) is the process of listing something for inclusion in a catalogue. By providing a name, title, and subject access to the description, a bibliographic record is created.

A **bibliography entry** normally provides the core elements to identify a text. An entry for a book in a bibliography usually contains the following elements: author/s, title, publisher, place and date of publication. An entry for a journal or newspaper article usually contains: author/s, article title, journal title, volume, pages and date of publication.

Bibliographic formats and standards are essential in Library Science. The OCLC organisation (Online Computer Library Center), founded in 1967, provides updated information as to current standards.

The **International Standard Bibliographic Description (ISBD)** is a set of rules produced by the IFLA (International Federation of Library Associations) to create a bibliographic description in a standard, human-readable form, especially for use in a bibliography or a library catalogue.

Another interesting example of standards are the **Minimum Data List (MDL)** which were provided by the FIAT/IFTA Documentation Commission in 1981. These are related to the preservation of audio-visual material. It consists of twenty-two fields of description grouped in three main areas (identification, technical data and rights) which is a standard for cataloguing video and film documents.

Bibliographic formats and standards are crucial in keeping control of all the existent production in a field. Standardisation is a tool for scientific management.

5.2.2.2. Content analysis

5.2.2.2.1. Indexing

The process of creating an ordered list of concepts, expressed as terms or phrases, with pointers to the place in indexed material where those concepts appear.

5.2.2.2.2. Writing an Abstract

An abstract is a concise summary of the key points of a larger work, often used to assist the reader in determining if that work is likely to be of use. An abstract is not a review, it does not evaluate the work being summarised. It contains key words found in the larger work. The abstract is an original document.

Abstracts allow readers to quickly decide whether it is worth their time to read the longer work. Also, many online databases use abstracts to index larger works. That is the reason why abstracts should contain keywords and phrases that allow for easy searching.

¹⁰ Hensen, Steve (2003), *Personal Communication*, available at www2.archivists.org/glossary/source/personal-communication



5.2.2.2.3. The Dublin Core – Metadata Initiative

The Dublin Core Metadata Initiative, or "DCMI", is an open organisation supporting innovation in metadata design and best practices across the metadata ecology. Dublin refers to Dublin, Ohio, USA, where the Dublin Core Schema originated during the 1995 Metadata Workshop hosted by the Online Computer Library Center (OCLC) and the National Center for Supercomputing Applications (NCSA). Core refers to the metadata terms since they are broad, generic and can be used to describe a wide range of resources. The semantics of the Dublin Core have been established and are maintained by international, cross-disciplinary groups of professionals from librarianship, computer science, museums, and other related fields of scholarship.

The Dublin Core Schema can be described as a small set of vocabulary terms that can be used to describe web resources (video, images, websites, and so on), but also resources such as books, CDs or even artworks. The original set of 15 classic metadata terms, known as the Dublin Core Metadata Element Set, are the following:

- title (the name given to the resource)
- creator (the person or organisation responsible for the content)
- subject (the topic covered)
- description (a textual outline of the content)
- publisher (those responsible for making the resource available)
- contributor (those who added to the content)
- date (when the resource was made available)
- type (a category for the content)
- format (how the resource is presented)
- identifier (numerical identifier for the content such as a URL)
- source (where the content originally derived from)
- language (in what language the content is written)
- relation (how the content relates to other resources, for instance, if it is a chapter in a book)
- coverage (where the resource is physically located)
- rights (a link to a copyright notice)

Each Dublin Core element is optional and may be repeated. The DCMI has established standard ways to refine elements and encourage the use of encoding and vocabulary schemes. There is no prescribed order in Dublin Core for presenting or using the elements.

☺ You can see an example from the UW-Milwaukee Libraries Digitization Unit <http://dltrre.sois.uwm.edu/metadata/exercises> - Dublin Core metadata have been created to describe an image of Afghanistan from the Harrison Forman Collection

5.2.3. Dissemination

The distribution of information to the general public is known as dissemination of information. The information release to the public can be conducted by the government or any institution which has been given authorisation to release information for any public sector. It is important the specific information is disseminated and made accessible to the various groups of people that the information concerns or will concern.





The acquisition, recording, organisation, retrieval, display, and dissemination of information are some of the concepts to be studied in the area of Information Management in Communication.

☺ Dissemination of Knowledge: the “Conscience” programme.

Universities are responsible for transferring to society all the achievements and findings that allow for social development. The promotion of scientific activities has clear benefits not only for citizens but also for researchers and the university itself.

The “Conscience” scientific dissemination programme was first developed in 2006 and organised by the Santiago de Compostela Consortium in collaboration with the USC. Now in its 9th edition, many researchers and scientists have been welcomed and awarded to spread their knowledge and discoveries. Explore the different editions of this programme and the so called Fonseca Prizes.



[source: <http://www.usc.es/es/cursos/conciencia/>]



II. BEYOND GOOGLE

1. Searching for information

Being able to search for useful information that is relevant to your studies is one of the key skills that will improve your marks, as well as the overall quality of your study experience. According to Emerald Group Publishing, the prestigious worldwide scholarly publisher of academic journals and books in many academic fields, there are a number of different steps when searching for relevant information:

- Knowing where to find information – the key texts in the area, the main journals, etc., and how to get hold of them.
- Knowing what information you need – understanding your topic and knowing the key concepts you should research.
- Knowing how to search the sources – using keywords, for instance.
- Recording your searches, so that you can keep track of them.¹¹

Checking existing bibliography in the field you are interested in is the first step when searching for scientific information. Basically, it consists of tracing back, as exhaustively as possible, the previous works existing on a topic. This way you can make sure of the state of the previous research in the same field you are doing your research in. This method is known as bibliographical or documentary search.

STEPS IN SCIENTIFIC RESEARCH:

1 – To identify an area of interest. Recognition of the problem that has generated the search and definition of it. In this stage, the following actions must be taken into account:

- Stating the aims and the purpose of the search.
- Describing what is already known about the topic.
- Emphasising aspects you are particularly interested in and aspects to be ignored.
- Pointing out any relation of the topic with other fields of study.

2 – To establish the level and the coverage that the search should have. In this sense, we would specify:

- The time period to be covered.
- The different languages that information can be retrieved in.
- The typology of literature to be revised which is most suitable for our project.

3 – To select the sources of information that will be used.

4 – To devise an effective search strategy.

Search Strategy

In order to succeed in our scientific research, there are several actions that will make us save time and get straight and efficient results, which are the following:

¹¹ Searching for Information. Emerald Group Publishing, available at www.emeraldgrouppublishing.com/learning/study_skills/skills/searching.htm#sthash.Fsywhn5e.dpuf



- To define, in one or several short sentences, the topic we would like to obtain information about.
- To pick up keywords from the key concepts contained in those sentences.
- To bear in mind the different forms of representation for key concepts: grammatical categories, synonyms, derivative form words, family words, etc.
- To translate the keywords into the documentary language to be used.
- To combine the selected keywords with the query language of the information retrieval system being used.

5 – To implement the devised search strategy.

6 – Evaluation of the first results obtained to see up to what point they fit the requested query and also whether they are relevant.

7 – To check the process according to the obtained results.

8 – To select and obtain the results satisfying the previous information needs.

9 – To present the results, properly organised, indicating the sources of information that have been checked and the followed search strategy.

2. Natural language versus controlled vocabularies

2.1. Natural language

A natural language is any language that may arise, unpremeditated in the brains of human beings. Natural or ordinary languages are the languages human beings use to communicate with one another. Semantic richness, subtleties of denotative meanings in the use of words and structures, or different levels of connotation are characteristics of natural languages that make them misleading and difficult to handle for documentary purposes. In Library and Information Science, controlled vocabularies solve the problems of homographs, synonyms and polysemes that can occur in natural language. They also reduce ambiguity inherent in normal human languages, where the same concept can be given different names. A controlled vocabulary is a carefully selected list of words and phrases, which are used to tag units of information so that they may be more easily retrieved by a search.

2.2. Controlled vocabularies

A controlled vocabulary is a restricted list of words or terms used for labelling, indexing or categorising. It is controlled because only terms from the list may be used for the subject area covered by the controlled vocabulary. It is also controlled in the sense that it is used by more than a person, so there is some control over who adds terms to the list, when and how. The list can grow, but only under certain policies.

There are two main kinds of **controlled vocabulary tools** used in libraries: library classification systems (subject heading) and thesauri (indexing language).

The two main Library Classification Systems are:



1 – The **Universal Decimal Classification** (UDC). It is a bibliographic and library classification developed by Paul Otlet and Henri La Fontaine at the end of the 19th century. It is based on the Dewey Decimal Classification first published in the United States by Melvil Dewey in 1876. In its first edition in 1905, the UDC already included many features that were revolutionary in the context of knowledge classifications, such as tables of concepts (called auxiliary tables), an expressive notational system with connecting symbols and syntax rules or re-usable attributes in a particular field of knowledge. It provides, therefore, a systematic arrangement of all branches of human knowledge organised as a coherent system in which knowledge fields are related and interlinked. UDC has become one of the most widely used knowledge organisation systems in libraries, where it is still used for either shelf arrangement, content indexing or both. UDC can describe any type of document or object to any desired level of detail. Any type of document (textual documents, films, video and sound recordings, maps, illustrations...) can be described to any desired level of detail by means of UDC codes. The classification has been modified and extended over the years and is still under continuous review available in over 50 languages.

2 - The **Library of Congress System** has 21 broad categories, each represented by one letter of the alphabet. For example, books on philosophy, psychology and religion all have codes starting with the letter B. Books on education start with the letter L. Many classes have subclasses identified by a second letter; for example, books on the history of education start with LA. Subsequent numbers further divide the categories.

☺ Several major classification systems use alphanumerical codes in addition to concept hierarchy as aids in managing their systems. Browse through the systems mentioned above, and think about what the numerical codes might offer in addition to what is available already in the concept hierarchy. What are the advantages/disadvantages of numbers vs. letters as markers?

- 1) Universal Decimal Classification (UDC) – www.udcc.org/outline/outline.htm
- 2) Library of Congress Classification – www.loc.gov/catdir/cpsolcc/lcco/lcco.html

Subject headings tend to be broader in scope describing whole books, while thesauri tend to be more specialised covering very specific disciplines.

Historically, subject heading systems were designed to describe books in library catalogues by cataloguers while thesauri were used by indexers to apply index terms to documents and articles.

Trained professionals (librarians, information scientists) who possess expertise in the subject area are responsible for choosing authorised terms that can accurately describe what a document is actually about.

Well-known subject heading systems include: the Library of Congress System, Medical Subject Headings (MeSH) and Sears Subject Headings¹².

¹² Minnie Earl Sears (17 November 1873-28 November 1933) formulated the *Sears Subject Headings*, a simplification of the Library of Congress Subject Headings. In 1999, *American Libraries* named her one of the "100 Most Important Leaders We Had in the 20th Century".



A **thesaurus** is a more structured kind of controlled vocabulary. It provides information about each term and its relationships to other terms within the same thesaurus. In addition to clearly specifying which terms can be used as synonyms (called “used from”), a thesaurus also indicates which terms are more specific (narrower terms), which are broader, and which are related terms.

Well-known thesauri include the UNESCO Thesaurus and the ERIC Thesaurus.

The UNESCO Thesaurus is a controlled and structured list of terms used in subject analysis and retrieval of documents and publications in the fields of education, culture, natural sciences, social and human sciences, communication and information. The Thesaurus is structured into seven major subject fields, or domains, broken down into microthesauri which allow you to gain a quick overview of the subject matter.

There are other types of controlled vocabularies, such as taxonomies and ontologies.

Taxonomy means the science of classifying things. Traditionally, the classification of plants and animals is a taxonomy (as the Linnaean classification system). The term taxonomy has become popular now to refer to any hierarchical classification or categorisation system. Unlike a thesaurus, where a given term may or may not have broader or narrower terms, in a taxonomy all terms belong to a single, large hierarchy that encompasses all concepts of a certain class, category, or facet. The structure is sometimes referred to as a tree and the terms as nodes in the tree.

We can also find what is called a **faceted taxonomy**. Each facet is its own hierarchy of terms, but actually the terms within a facet do not have to be in a hierarchy. What distinguishes facets is that the user may select multiple terms, one from each facet, in combination to execute a complex search. Furthermore, facets must represent different aspects or dimensions of a query such as location, topic, source, type, etc.

An **ontology** is a set of concepts with attributes and relationships between the various concepts that contain several meanings, all to define a domain of knowledge, and is expressed in a format that is machine-readable. Certain applications of ontologies, as used in artificial intelligence or biomedical informatics, may define a domain of knowledge through terms and relationships as the end goal, rather than being used for any tagging. In the area of taxonomies and information science, however, an ontology can be seen as a more complex type of thesaurus, in which instead of having simply “related term” relationships, there are various customised relationship pairs that contain specific meaning, such as “owns” and a reciprocal “is owned by.”

3. Information retrieval (IR) query language

In order to retrieve information efficiently from the web, electronic journals or digital libraries, we need to use search tools.

A search can be conducted by entering a single search term or a phrase comprising more than one term. The keyword search is the simplest form of search facility offered by a search system. Every search system provides a search box where users type their search terms or phrase. The advanced search interfaces of web search engines provide facilities to make a search statement more specific.



A query language is used to make queries in a database or an information system. Most search engines, for example, allow searchers to enter a phrase within double quotes, but the terminologies used for word and phrase search may vary from one search engine to another.

3.1. Boolean operators

Most Internet search engines, web directories and bibliographic databases make use of Boolean search parameters. Actually, a good Web searcher should know how to use basic Boolean operators. Boolean logic was developed by an English mathematician in the 19th century, George Boole, and it is essentially very simple. Boolean operators form the basis of mathematical sets and database logic: they combine and exclude certain concepts when searching databases. The three basic Boolean operators are: **AND**, **OR**, and **NOT**¹³.

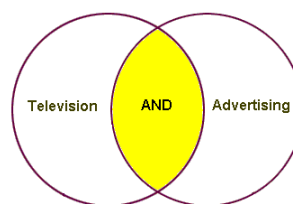
We use Boolean operators to focus a search –particularly when the topic we are searching information about contains multiple search terms– and also, to connect several pieces of information (to find exactly what we are looking for).

Boolean searching (the following examples have been taken from the effective search tips provided by the University of Exeter)¹⁴

- Boolean operator **AND** (also a plus symbol +)

Example: *television AND advertising*

AND is a Boolean operator which narrows the search. The previous search strategy will retrieve all records containing both keywords *television* and *advertising* occurring in the same context.




Using **AND**, you will receive results containing **BOTH** your search terms.

- Boolean operator **OR** (also a comma symbol ,)

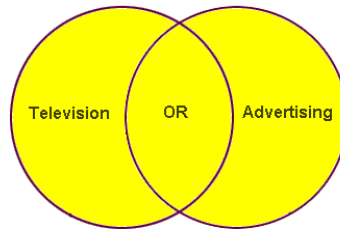
Example: *television OR advertising*

OR is a Boolean operator which broadens a search. A search strategy stating *television or advertising* will help you find articles containing one or other or both keywords.

¹³ There is a fourth exclusive Boolean operator which can be described as “exclusive or”, “but not” because the meaning of “or” is ambiguous. This is sometimes thought of as one or the other but not both. “A or B” but not “A and B” 

¹⁴ Education. Information Skills. Effective Search Skills. University of Exeter.

<http://as.exeter.ac.uk/library/subjectguides/education/informationkills/searchskills/>

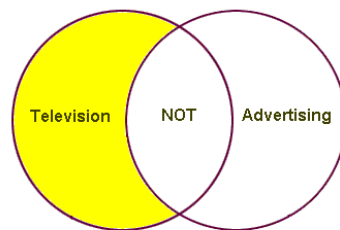


Using **OR**, you will receive results containing **EITHER** or **BOTH** of your search terms.

- Boolean operator **NOT** (also ANDNOT or a minus symbol -)

Example: *television NOT advertising*

NOT is a Boolean operator which excludes terms from a search. With this search strategy, you want to find articles that contain the word *television* but excluding those which discuss *advertising*.



Using **NOT**, you will receive results containing the first search term, excluding those also containing the second.

By using basic Boolean operators, we refine our keyword search. It is also possible to compose some complex or advanced search using Boolean operators by means of **parentheses**. For example: *art **AND** (school **OR** college)* - this expresses a search for records containing information about art schools or colleges.

☺ If you want to retrieve all records containing the keyword *film* but not the keyword *photography*, which search strategy would you use? And what about articles containing information about *brand equity in advertising*?

3.2. Proximity operators

Proximity search allows users to specify the distance between two search terms in the retrieved results. The proximity search is similar, in principle, to the Boolean AND search, except that it makes the search more restricted. Therefore, proximity searches are likely to produce more specific results compared with a simple Boolean AND. Proximity operators provide search results based on the distance by number of terms separating two keywords.



ADJ	Terms should be next to each other and in order specified
ADJn	Terms should be within <i>n</i> words of each other and in the order specified
NEAR	Terms should be next to each other and in any order
NEARn	Terms should be within <i>n</i> words of each other and in any order
SAME	Terms must be in the same paragraph, in any order.
" " (quotes)	Quotes are used to search for an exact phrase containing the terms within the quotation marks. Capitalisation is not taken into consideration.

3.3. Numeric Operators

The following numeric operators can be found in some search engines or databases:

- = Equal to. It can be used for dates, numeric terms, and text.
- <> Not equal to. It can be used for dates and other numeric terms.
- > Greater than. It can be used for dates and other numeric terms.
- >= Greater than or equal to. It can be used for dates and other numeric terms.
- < Less than. It can be used for dates and other numeric terms.
- <= Less than or equal to. It can be used for dates and other numeric terms.

3.4. Truncation and Wildcards

Truncation, also called **stemming**, is a technique that broadens your search to include several word endings and spellings. It is a search facility that enables a search to be conducted for all the different forms of a word having the same common root. As an example, the truncated word **librar*** will retrieve items containing the terms *library*, *libraries*, *librarian*, etc.

- To use truncation, enter the root of a word and put the truncation symbol at the end.
- The database will return results that include any ending of that root word.
- Examples:
 child* = child, childs, children, childrens, childhood
 genetic* = genetic, genetics, genetically
- Truncation symbols may vary by database; common symbols include: *, !, ?, or #

A number of different options are available for truncation such as right truncation and left truncation. Similar to truncation, **wildcards** substitute a symbol for one letter of a word.

- This is useful if a word is spelled in different ways, but still has the same meaning.



- Examples:
wom!n = woman, women
colo?r = color, colour

Truncation and wildcards substitute a symbol for one letter or word. They are quite useful when you come across root words that have multiple endings or words that are spelled in different ways.

- Root words that have multiple endings. Example: sun = suns, sunshine, sunny, sunlight
- Words that are spelled differently, but mean the same thing. Example: color, colour

Truncation/wildcard symbols vary by database. You just have to explore the help screens to find out which symbols are used.

4. The Internet and the World Wide Web

On many occasions we use the terms Internet and World Wide Web (aka. The Web) interchangeably. In fact, these two terms are related things but they are not synonymous.

The Internet is a massive network of networks, a networking infrastructure. It connects millions of computers on a global basis, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. Information travelling over the Internet does so via a variety of languages known as **protocols**.

The World Wide Web, or simply Web, is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web uses the HTTP protocol (only one of the languages spoken over the Internet) to transmit data. The Web also uses browsers (such as Internet Explorer, Google Chrome or Firefox) to access web documents called web pages, that are linked to each other via hyperlinks. Web documents can contain graphics, sounds, text or video. The Web is just one of the ways that information can be disseminated over the Internet. The Internet, not the Web, is also used for e-mail (which relies on SMTP, another protocol), instant messaging, Usenet news groups and FTP. So the Web is just a portion of the Internet, albeit a large portion, but the two terms should not be confused.

4.1. Surface Web

Also known as the Clearnet, the visible Web, the indexable Web, it is that portion of the World Wide Web that is indexable by conventional search engines. Search engines construct a database of the Web by using programmes called spiders or Web crawlers. The spider gets a copy of each web page and indexes it, storing useful information that will let the page be quickly retrieved again later. The collection of reachable pages defines the Surface Web. For various reasons (password protection, the robots exclusion standard, links generated by Flash or JavaScript), some pages cannot be reached by the spider. In June 2008, the indexed web contained 63 billion pages.

4.2. Invisible Web

Also called, the Deep Web or the Hidden Web, it is web content that is not indexed by standard search engines. Most of the information on the Web is hidden because it is buried far down on dynamically generated sites, and therefore, standard search engines cannot retrieve it.



Michael Bergman, who works for Bright Planet, published in 2001 an interesting paper on the concept of the Deep Web. *The Deep Web: Surfacing Hidden Value*¹⁵ Searching on the Internet, Bergman states, can be compared to dragging a net across the surface of the ocean. A great deal may be caught in the net, but there is still a wealth of information that is deep, and therefore, missed. The writer proves amazing ideas such as the fact that sixty deep sites already exceed the surface web by forty times or that the Deep Web is 500 times larger than the Surface Web.

4.3. Dark Internet

It refers to any or all network hosts on the Internet that can no longer be accessed through conventional means. It is also called dark address space or lost address¹⁶. It should not be confused with the Deep Web, which refers to hard-to-find websites and secretive networks that exist within the Internet. The Dark Internet is any portion of the Internet that cannot be accessed through conventional means.

5. Directories

5.1. INFOMINE (infomine.ucr.edu , Scholarly Internet Resource Collections)

Infomine is a virtual library of Internet resources built by librarians from the University of California and some other universities or colleges. It contains useful Internet resources such as databases, electronic journals, electronic books, bulletin boards¹⁷, mailing lists, online catalogues, articles, directories of researchers, and mostly resources relevant to faculty members and staff at university level.

5.2. The WWW Virtual Library (<http://vlib.org/>)

The WWW Virtual Library (VL) is the oldest catalogue of the Web, started by Tim Berners-Lee, the creator of HTML and of the Web itself, in 1991 at CERN in Geneva. Unlike commercial catalogues, it is run by a loose confederation of volunteers, who compile pages of key links for particular areas in which they are expert; even though it isn't the biggest index of the Web, the VL pages are widely recognised as being amongst the highest-quality guides to particular sections of the Web.

6. Google Scholar - a special search engine

It started in November 2004 with the advertising slogan "Stand on the shoulders of giants", a freely accessible web search engine that indexes the full text of scholarly literature across an

¹⁵ Bergman, M.K. (2001) White Paper: The Deep Web: Surfacing Hidden Value, *The Journal of Electronic Publishing* Volume 7, Issue 1, available at <http://quod.lib.umich.edu/jjep/3336451.0007.104?view=text;rgn=main>

¹⁶ Expedition to the Lost Net (2001), BBC News, available at <http://news.bbc.co.uk/2/hi/science/nature/1721006.stm>

¹⁷ A *bulletin board* in Computer Science is a system that enables users to send or read electronic messages, files, and other data that are of general interest and addressed to no particular person.



array of publishing formats and disciplines. It includes most peer-reviewed online journals of Europe and America's largest scholarly publishers, plus scholarly books and other non-peer-reviewed journals.

In 2006, a citation importing feature was implemented to Google Scholar, using bibliography managers¹⁸ (such as RefWorks, RefMan, EndNote and BibTex) and also other search engines such as Scirus and CiteSeer.

In 2007, Google Scholar started a programme to digitise and host journal articles. In 2011, Google removed Scholar from the toolbars on its search pages, making it less accessible to users who did not want to use it specifically.

In 2013, Google Scholar introduced a Google scholar library, a sort of personal collection which the user can search and organise by tags to save search results.

Google Scholar allows users to search for digital or physical copies of articles (whether online or in libraries). It indexes full-text journal articles, technical reports, preprints, theses, books, and other documents. Many of Google Scholar's search results link to commercial journal articles, so most people will be able to access only an abstract and the citation details of an article, having to pay a fee to access the entire article. Its "cited by" feature provides access to abstracts or articles that have cited the article being viewed. This feature in particular provides the "citation indexing" only found in Scopus and Web of Knowledge. Also, it presents the "Related articles" feature, which introduces a list of closely related articles, ranked primarily by how similar these articles are to the original result, but also taking into account the relevance of each paper.

While most academic databases and search engines allow users to select one factor (e.g. relevance, citation counts, or publication date) to rank results, Google Scholar ranks results with a combined ranking algorithm taking into account the full text of each article, the author, the publication in which the article appears and how often the item has been cited in other scholarly literature. Google Scholar puts high weight on citation counts and, as a consequence, the first search results are highly cited articles.

7. Meta-search engines

A **meta-search engine** is a search tool that sends user requests to several other search engines and/or databases and aggregates the results into a single list or displays them according to their source. Meta-search engines enable users to enter search criteria once and access several search engines simultaneously. Meta-search engines operate on the premise that the Web is too large for any one search engine to index it all and that more comprehensive search results can be obtained by combining the results from several search engines.

This is a comprehensive list of search engines that query numerous other websites to satisfy an end user's request.

¹⁸ Bibliography Management tools (also known as citation or reference management tools) help you organise your research sources and generate bibliographies in multiple citation formats. Stanford University Libraries support the following bibliography management tools: Endnote and EndNoteWeb, Mendeley, RefWorks and Zotero.



They scan the top Internet search engines using keywords inputted by their users, then aggregate popular results into a single web list, usually displaying them according to their source. These are great tools for getting suggestions from many helpful resources at the same time.

The best meta-search engines according to Alexa Traffic Rank are the following:

TOP 10 META-SEARCH ENGINES

SEARCH ENGINE	ALEXA RANK*	UNIQUE VISITORS**
	742	7 M
	1936	6.1 M
	2217	68 M
	3199	1 M
	6018	478 K
	7573	638 K
	9020	3 M
	21766	N/A
	24679	27 K
	79752	25 K

*Alexa Traffic Rank (global). **Monthly Unique Visitor estimates from Compete.com (U.S. only). Updated for 2014.

8. BUA - University of Alicante Library Catalogue

The University of Alicante Library (BUA) offers an online catalogue by means of which you can get access to all material (monographs, journals in printed and online format, multimedia format and so on) available in the several libraries of the University of Alicante.

The quick search is immediate when following some of these routes:

1. Write down the search term(s).
2. Choose search mode.

Keyword for search.

Alphabetical list to view entry list starting with the first keyword.

Exact matches to retrieve entries with identical correspondence with the terms(s) introduced.

3. Select search field.

All fields to search within all fields.



Quick Search

☒ Keyword
 ☐ Browse
 ☐ Exact

Power search

[source: <http://gaudi.ua.es/uhtbin/cgisirsi/?ps=J6izKeVyda/0/199910059/111/INGLES>]

The advanced or complex search lets you refine your search by using Boolean operators with keywords, combine different keywords and select languages, formats, types of items, location of materials or dates of publication.

<http://gaudi.ua.es/uhtbin/cgisirsi/?ps=vfB828yDgC/0/4160016/111/INGLES>

The **PuntBiu** (Library Information Point of Users), run by Ana R. Candela Hidalgo is the first contact between users and overall issues related to the Library. PuntBiu offers general information about the Library and its services, it helps you with basic and general bibliographic searches. In particular, PuntBiu provides regular training for the use of library information resources such as the bibliographic catalogue, databases, electronic journals or works of reference through tutorials and also training courses. Finally, its aim is also to organise and develop materials to make bibliographic collections known as well as the services, products and extracurricular activities of the BUA.

puntbiu@ua.es, Monday to Friday (8:30 a.m.–9 p.m.) Main Library Building, ground floor.



III. UNRESTRICTED ONLINE ACCESS

1. Lexical resources.

Lexical resources are collections of *lexical items*, typically together with linguistic information and/or classification of these items. Within lexical resources, a distinction should be made between several basic concepts:

- *dictionary*, mostly referring to reference works compiled to be used by humans directly,
- *lexicon*, used in a more technical sense mainly as an integral part of complex natural language processing (NLP) applications such as language/speech analysis and production systems and thus often not used by humans directly,
- *glossary*, an alphabetical list of terms in a particular domain of knowledge with the definitions for those terms. In this sense, the term is related to the notion of ontology.

1.1. Dictionaries

A dictionary is a set of words listed alphabetically. It can be either a collection of words in one or more specific languages or referred to a discipline. Dictionaries often contain definitions of the words, they also provide information on the spellings, pronunciation, word origins (*etymology*), functions, different forms of the word, etc.

According to Nielsen (2008)¹⁹ a dictionary may be regarded as a lexicographical product whose three main relevant features are:

- It has been prepared for one or more functions.
- It contains data that have been selected for the aim of fulfilling those functions.
- Its lexicographic structures link and establish relationships between the data so they can meet the needs of users and fulfil the functions of the dictionary

1.2. Directories of dictionaries

Directories are usually human-compiled guides. They contain categories and subcategories organising their contents. A directory has a structure: it aims to organise information resources in a hierarchy.

Lexicool.com is a directory of "all" the online bilingual and multilingual dictionaries and glossaries freely available on the Internet. The site has a fully searchable database with over 7,500 dictionaries referenced. It is a resource intended for translators, linguists, language students and all those people interested in foreign languages.

1.3. BUA terminology resources

(biblioteca.ua.es/es/servicios/obras-de-consulta/diccionarios-y-glosarios.html)

2. Directories.

¹⁹ Nielsen, Sandro (2008). "The Effect of Lexicographical Information Costs on Dictionary Making and Use". *Lexikos* 18: 170–189. ISSN 1684-4904



A directory can be understood as a list of people, companies, institutions, organisations, etc., in alphabetical or classified order, providing contact information (names, addresses, phone/fax numbers, etc.) and other pertinent details (affiliations, conferences, publications, membership, etc.) in brief format, often published serially (example: American Library Directory).

An *Internet directory* is an online service that indexes publicly accessible websites and other Internet resources, usually by subject according to a hierarchical classification system (example: *Yahoo! Directory*). INFOMINE is a searchable directory that indexes only scholarly Internet resource collections. The *WWW Virtual Library* is an example of a **metadirectory** (directory of directories).

3. Statistical sources of information.

3.1. INE - Spanish statistical office - (www.ine.es)

The National Statistics Institute is a legally independent administrative autonomous institution assigned to the Ministry of Economy and Competitiveness. It plays an important role in public statistics activity, being in charge of large-scale statistical operations (demographic and economic censuses, national accounts, demographic and social statistics, economic and social indicators, etc.).

The National Statistics Institute has compiled **Annual Reports** since 2009. Its purpose is to improve institutional communications making information accessible to users, both to the main activities carried out during the reference period, and to the most relevant projects that are being developed and that will be part of the work programme for the following year.

The INE uses **INEbase** to store statistical information on the Internet. INEbase contains all the information the INE produces in electronic formats. Statistical operations can be accessed via topic menus, which usually present a short description of the variables published, the intervals and availability of the data and the geographical scope. The data files can be viewed directly from INEbase or downloaded free of charge.

3.2. EUROSTAT

Eurostat is a Directorate-General of the European Commission located in Luxembourg. Its main responsibilities are to provide statistical information to the institutions of the European Union (EU) and to promote the harmonisation of statistical methods across its member states and candidates.

Eurostat was established in 1953. Over the years its task has broadened and when the European Community was founded in 1958, it became a Directorate-General (DG) of the European Commission. Eurostat's key role is to supply statistics to other DGs and supply the Commission and other European Institutions with data so they can define, implement and analyse Community policies.

4. Open-Access Resources and Repositories.

Open access (OA) refers to the free, immediate, online availability of research articles. It means unrestricted online access to scholarly journal articles, theses, chapters of books,



scholarly monographs, and peer-reviewed scholarly research materials coupled with the rights to use those fully in the digital environment.

When dealing with OA, a main distinction has to be made between *gratis open access* (free online access) and *libre open access* (free online access plus some additional rights. These rights are granted through the use of several Creative Commons licences).

The idea and practice of providing free online access to journal articles began at least a decade before the term "open access" was formally coined. Computer scientists had been self-archiving in anonymous FTP archives since the 1970s and scientists had also been self-archiving in **arXiv** since the 1990s.

The **arXiv** is a repository of electronic preprints, known as e-prints, of scientific papers in the fields of mathematics, physics, astronomy, computer science, biology, statistics, and quantitative finance, which can be accessed online. It was originally developed by Paul Ginsparg and started in August 1991.

The term **e-print** was adopted to describe the articles.

The initial concept of open access refers to an unrestricted online access to scholarly research primarily intended for scholarly journal articles. The term "open access" itself was first formulated in three public statements in the 2000s:

- The **Budapest Open Access Initiative** in February 2002,
- The **Bethesda Statement** on Open Access Publishing in June 2003, and
- The **Berlin Declaration** on Open Access to Knowledge in the Sciences and Humanities in October 2003.

The Budapest statement defined open access as follows:

"... free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.²⁰"

The Bethesda and Berlin statements add that for a work to be open-access, users must be able to "copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship²¹."

Authors can provide open access in two ways:

1 – by **self-archiving** their journal articles in an open-access repository, also known as **green open access**. Authors publish in any journal and then self-archive a version of the article for

²⁰ Budapest Open Access Initiative, available at <http://www.budapestopenaccessinitiative.org/read>

²¹ Open Access Policy. Definition of Open Access Publication from Bethesda Statement on Open Access Publishing. Journal of the American Heart Association, available at http://jaha.ahajournals.org/site/misc/oa_policy.xhtml



gratis public use in their institutional repository, in a central repository, or on some other open-access website.

2 – by **publishing in an open-access journal**, known as **gold open access**. Authors publish in open-access journals, which provide immediate open access to all of their articles, usually on the publisher's website.

There are many business models for open-access journals. Open access can be provided by traditional publishers, who may publish open-access as well as subscription-based journals. Open-access publishers such as Public Library of Science (PLOS), publish only open-access journals. There are also *hybrid open-access journals*²², which are subscription journals that provide gold open access only for those articles for which an open-access publishing fee has been paid. Authors pay an open-access publishing fee.

To find out if a publisher or journal has given a green light to author self-archiving, the author can check the Publisher Copyright Policies and Self-Archiving list on the **SHERPA RoMEO web site** (<http://www.sherpa.ac.uk/romeo/>)

To find out by journal, the author can check the **EPrints Romeo site** (http://wiki.eprints.org/w/Authority_Lists)

The advent of the Internet and the World Wide Web was the momentum that made it possible to think about the possibility of a change from the traditional publishing models to the growing electronic publishing models which created new benefits as compared to paper publishing. Rather than making journal articles accessible through a subscription business model and applying traditional notions of copyright to academic publications, open-access publishing made viable funding models with which it was possible to maintain traditional peer-review standards of quality.

Also, the OA movement gives scholars a greater awareness of the social problems caused by restricting access to academic research. Even though open-access models are problematic, traditional publishing models are definitely not sustainable.

The OA movement is also extending beyond academic publications. Open access is increasingly being found present in fields such as open data, open educational resources, open science, open government, and so on.

There are four primary mechanisms that can be used to enable Open Access:

1. Open-Access Publishing – authors can choose to publish their research articles in a growing number of journals that meet the full definition of Open Access. Articles are free to all interested readers, and the publisher places no financial or copyright barriers between the readers and the article. A comprehensive list of Open-Access Journals is provided by the **Directory of Open Access Journals (DOAJ)**

²² Björk, Bo-Christer. (2012). The Hybrid Model for Open Access Publication of Scholarly Articles – a Failed Experiment? Journal of the American Society for Information Science and Technology, in press, available at <http://www.openaccesspublishing.org/hybrid/hybrid.pdf>



2. Digital Repositories – authors can choose to deposit their research articles in digital archives (often called Digital Repositories or Institutional Repositories) which fit the standards of the Open Archives Initiative (OAI), and enable readers to freely access and fully re-use the article text. There are more than 2,000 open Digital Repositories available for authors to use around the world, and a comprehensive listing of them is available through the **Directory of Open Access Repositories (OpenDOAR)**
3. Effectively Managed Author Rights — As the author of a research paper, you have ability to ensure that your article can be accessed and used by the widest possible audience. The SPARC Author Addendum²³ is a free resource developed by SPARC in partnership with Creative Commons and Science Commons, established non-profit organisations that offer a range of copyright options for many different creative endeavours. It is a legal instrument that modifies the publisher's agreement and allows researchers to keep certain rights to their work such as the right to redistribute.
4. Local, national and international Open-Access policies — Institutions that support research, from public and private research funders to higher education institutions, can implement effective policies that support making Open Access to scholarly research articles the standard option for their researchers.

5. Creative Commons Licences

Creative Commons (CC) is a non-profit organisation whose main purpose is to expand creative works and make them available for others to build upon legally and to share. The headquarters of Creative Commons are in Mountain View, California.

Lawrence “Larry” Lessig, an American academic and political activist, professor of cyberlaw (legal aspects of computing) and founder of the *Center for Internet and Society*, was one of the founders of Creative Commons in 2001.

In December 2002, Creative Commons released its first set of copyright licences for free to the public. Creative Commons developed its licences inspired by the Free Software Foundation's General Public License (GNU GPL) together with a web application platform to help you licence your works freely on certain conditions and for certain uses, or just dedicate your works to the public domain.

Creative Commons licences, public domain tools, and supporting technologies have become the global standard for sharing across culture, education, government and science.

The idea of universal access to research, education, and culture is made possible by the Internet, but our legal and social systems don't always allow that idea to be realised. Copyright was created long before the emergence of the Internet, and can make it hard to legally

²³ SPARC Author Addendum to Publication Agreement, available at <http://www.sparc.arl.org/resources/authors/addendum-2007>





perform actions we take for granted on the network: to copy, paste, edit source, and post to the Web. The default setting of copyright law requires all of these actions to have explicit permission, granted in advance, whether you're an artist, teacher, scientist, librarian, policymaker, or just a regular user. To achieve the vision of universal access, someone needed to provide a free, public, and standardised infrastructure that creates a balance between the reality of the Internet and the reality of copyright laws. *That* someone, as they present themselves, is Creative Commons.

☺ **Who uses CC?** Study the different cases and uses of CC of some of the best-known users of Creative Commons licences and find some more information about them and the implication of the use of CC licences in their business and communication models:

- *Al Jazeera Creative Commons Repository*, posting videos under the CC Attribution licence. These videos were shot in Gaza, highlighting the Israeli/Palestine conflict. Whereas most Western media had no access to the area, Al Jazeera was visibly present. As a result, the footage was both eye-opening and highly functional -it was footage that anyone could view and use freely.
- *Flickr*, one of the world's most useful resources for discovering creativity that is available for free and legal sharing, use, and remixing,
- *Google* has made use of CC licences by allowing users to CC license contents in Picasa for instance. YouTube, which is Google-owned, possesses the CC BY licensing option for video uploads. Also, Google enables CC-search through their main image search engine and book search engine.
- *Nine Inch Nails* released *Ghosts I-V*, a collection of 36 new instrumental tracks that are available to the world under a Creative Commons BY-NC-SA licence, becoming a new distribution model for music

5.1. Typology of licences²⁴



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²⁴ The information about the licences has been taken from the official website www.creativecommons.org



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☺ **Who uses CC?** What are the drawbacks of Creative Commons licences?

Although Creative Commons licences are very useful they can be misused, so content creators and content users need to be careful. When using the licences properly, everyone needs to be familiar with concepts like copyright law and public domain.





Study Case 1 - For example, Person A may publish under a Creative Commons licence a recording of her saxophone quartet version of Beethoven's Moonlight Sonata. Person A may think that this composition is in the public domain, but the quartet was using an arrangement that is protected by copyright as it is a substantial adaptation of the original Beethoven's work. Therefore, Person A did not actually have the right to issue the work under a Creative Commons licence. Person B then comes across the song and uses it in a video that he uploads to YouTube, and he publishes that video in a Creative Commons licence. Then twenty other people make use of that video via YouTube's video editor to create their own videos. The problem is that Person B and the twenty other people are now guilty of copyright infringement and could have their videos taken down. This kind of inadvertent copyright infringement is popping up quite frequently on Google's YouTube discussion forum.

Study Case 2 - Is everyone involved in your work OK with all the possible uses? And what about a photo of two men? Perhaps it is just a photo of two of your friends taken during a trip to the beach. Suddenly, because of the blog's popularity, the photo starts appearing on Facebook feeds and before long, your two straight friends have become poster boys for homosexuality. Notwithstanding their own views on gay rights, would they be comfortable with their new role as symbols? A similar thing happened to a Texan teen, whose images, published by a friend on Flickr with a CC BY licence, were used in a Virgin Mobile advertising campaign in Australia that presented her in an unflattering light (www.cbsnews.com/2100-205_162-3290986.html). Her family attempted to sue several parties, but was unsuccessful (the main stumbling block was that there was no clear jurisdiction).

Study Case 3 - Creative Commons licences can easily be abused by scrapers. Scrapers are people who collect, often using automated software, content produced by others and then republish the content with the goal being to drive people to their own website and earn advertising dollars (this is called 'web scraping'). If all of your photos, videos or blog entries are published under Creative Commons licences, there is nothing to stop a scraper from downloading and re-uploading ALL your work into what essentially becomes a mirror site. If you find out your Creative Commons licensed work is scraped, there is not much you can do about it, especially if your name is included somewhere on the page. If your work is NOT published under a Creative Commons licence, however, you can act to have the copied content removed (www.blogger.com/how-get-stolen-content-removed-0)



IV. WILL PRINTED BOOKS DISAPPEAR?

1. The Spanish publishing industry

Reading is a fundamental tool for personality development, but it is also fundamental for socialisation as an essential element for coexisting in democracy and coping with the Information Society. (Cover of the Reading Promotion Plan Activities by the Spanish Ministry of Education, Culture and Sports).

The Spanish Ministry of Education, Culture and Sports produces, in-house or in collaboration with other entities in the sector, several studies intended to reflect the situation of certain aspects: reports related to reading, the publishing industry, the influence of new technologies on the book industry and reading habits, libraries, cultural magazines and other general reports. Also, many activities to encourage reading are being organised regularly.

The publishing industry in Spain moves around 3,000 million of euros per year (3 billion for US readers) which is around the 0.7% of Spain's GDP (Gross Domestic Product) and employs more than 30,000 people. There are 890 publishing houses in FGEE (Spanish Publishers Trade Unions Federation), which is the 95% more or less; also in 2012, 535 new publishing houses signed up to the ISBN agency; in these times where publishing is dead it looks like a lot of new businesses.

In 2012, publishing houses had 8% decrease in the titles they published, from which 22% were in digital format and 78% in paper. The eBooks published in 2012 increased 13% more compared to 2011.

☺ "Stats are often hard to interpret in the publishing industry", that is a really interesting thought stated by Mike Shatzkin in his post <http://www.therightsmanager.com/news/some-stats-from-the-publishing-industry-in-spain/>. Read it carefully and discuss the questions posed below:

- Is enough material being digitised nowadays?
- Are eBooks priced reasonably, taking into account all factors?
- Is awareness being raised in our society that authors need to be paid for their creative work?

1.1. The Legal Deposit in Spain

The Legal Deposit is a legal requirement that a person or group submit copies of their publications to a repository, usually a library. Normally, the national library is one of the repositories of these copies. In some countries there is also a legal deposit requirement placed on the government, and it is required to send copies of documents to publicly accessible libraries.

In Spain, compulsory legal deposit of printed materials has existed since 1619 for the Royal Library of El Escorial and since 1976 for the Royal Library of Madrid (the National Library of Spain).



The decree of 1957 established a solid administrative base for legal deposit in Spain, based on the separation between provincial offices that managed legal deposit at the local level and conservation libraries, such as the National Library. The decree stipulated that printers were responsible for depositing several copies of all published works at the National Library and other public libraries.

This legal deposit legislation covered a wide range of materials, including printed materials such as books and magazines, sound recordings, maps, films, and postcards.

The 1957 decree, though superseded by other decrees in 1971 and 1973, remained almost intact until 2011, when a new legal deposit law was passed. **Law 23/2011** established, among other things, that the publisher, not the printer, was the primary entity responsible for submitting its materials to legal deposit. It also established procedures for the legal deposit of electronic materials, including online ones. The number of copies that must be delivered to each library varies between two and four according to the type of material. Through legal deposit, the National Library collects all materials published in Spain. The central libraries for each region collect works published in their respective communities, and provincial libraries collect works published in their respective region.

1.2. The ISBN (International Standard Book Number)

The International Standard Book Number (ISBN) is a unique numeric commercial book identifier based upon the 9-digit Standard Book Numbering created in 1965 for booksellers and stationers. The real ISBN configuration of recognition was generated in 1967.

The 10-digit ISBN format was developed by the International Organization for Standardization (ISO) and was published in 1970 as international ISO standard ISO 2108.

Since 1 January 2007, ISBNs have contained 13 digits, a format that is compatible with the European standards.

☺ Identify the following ISBNs: 978-0-83891-185-3, 978-0-83891-065-8, 978-0-81094-634-7

1.3. DOI (Digital Object Identifier)

A digital object identifier (DOI) is a unique alphanumeric string assigned by a registration agency (the International DOI Foundation) to identify content and provide a persistent link to its location on the Internet. The publisher assigns a DOI when your article is published and made available electronically.

All DOI numbers begin with a 10 and contain a prefix and a suffix separated by a slash. The prefix is a unique number of four or more digits assigned to organisations; the suffix is assigned by the publisher and was designed to be flexible with publisher identification standards.

It is usually recommended that, when DOIs are available, you include them for both print and electronic sources. The DOI is typically located on the first page of the electronic journal article, near the copyright notice.



☺ DOAJ (Directory of Open Access Journals) is an online directory that indexes and provides access to quality open-access, peer-reviewed journals. Visit the DOAJ website doaj.org and find all the information about the following DOIs:

10.5539/ass.v9n3p154

10.2298/YJOR1102163K

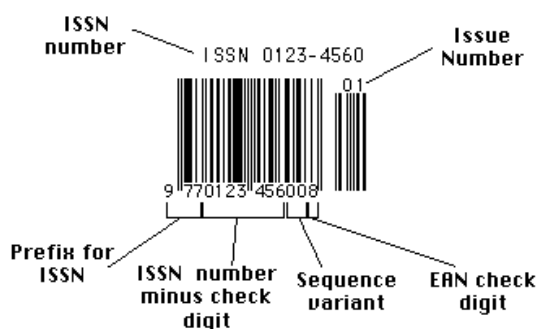
10.5539/ass.v10n7p200

1.4. ISSN (International Standard Serial Number)

It is a worldwide identification code used by publishers, suppliers, libraries, information services and bar coding systems, etc. for citation and retrieval of serials such as journals, newspapers, newsletters, directories, yearbooks and annual reports, etc.

Serials are print or non-print publications issued in parts, usually bearing issue numbers and/or dates. A serial is expected to continue indefinitely. Serials include magazines, newspapers, annuals (such as reports, yearbooks, and directories), journals, memoirs, proceedings, transactions of companies, and monographic series.

It's a standard numeric code made up of 8 digits whose last digit is a control character that may be the letter "X".



Source: National Science Library, New Delhi, at <http://nsl.niscair.res.in/issn.jsp>

The ISSN distinguishes a particular serial from others. The ISSN also helps library patrons, libraries, and others who handle large numbers of serials to find and identify titles in automated systems more quickly and easily. Unlike the ISBN, which contains country and publisher prefixes, the ISSN contains no inherent meaning.

The benefits of ISSN include international publicity and recognition of the serial by automatic inclusion in the International Serials Directory Database.

- Serials often undergo changes (of publisher, frequency, format, edition, country of origin), which do not affect the ISSN. However, if the title changes significantly, a new ISSN must be assigned.
- ISSN is assigned to the entire serial and stays the same from issue to issue unless you change the title of your serial.
- The preferred location for printing the ISSN on a printed serial is on the upper right-hand corner of the cover. Other good locations are the masthead area,



the copyright page, or in the publishing statement where information about the publisher, frequency, and other publication facts are given. On a non-print serial, the ISSN should be printed, if possible, on an internal source, such as on a title screen or home page.

2. Identification: Databases

2.1. National bibliographies

2.1.1. ARIADNA (Catalogue of the National Library of Spain)
<http://www.bne.es/en/Catalogos/CatalogoBibliografico/>

This single catalogue contains all of the bibliographic references to modern books published from 1831 onwards; antique books, pamphlets and printed sheets published up until 1830; manuscripts, journals and newspapers, engravings, drawings and photographs, maps and plans, musical scores and sound and video recordings. The current contents of the Bibliographic Catalogue can be searched using different kinds of search: basic search, advanced search, index search and signature search.

2.1.2. The British National Bibliography (<http://bnb.bl.uk/>)

The British National Bibliography (BNB) lists the books and new journal titles published or distributed in the United Kingdom and Ireland since 1950. It also lists forthcoming book titles and hand-held electronic publications e.g. CD-ROMs, deposited with the Legal Deposit Office since 2003.

The BNB is the single most comprehensive listing of UK titles. UK and Irish publishers are obliged by law to send a copy of all new publications, including serial titles, to the Legal Deposit Office of the British Library. This material is catalogued by experienced staff in accordance with international standards for resource description and access.

2.2. Commercial bibliographies

2.2.1. ISBN (*see 1.2. above*)

The International Standard Book Number (ISBN) is a thirteen-digit number that uniquely identifies a book regardless of format (hardcover, paperback, audio, eBook, etc.). Books published before 1 January 2007 had ten-digit ISBNs. Since then, thirteen-digit ISBN numbers have become standard.

An ISBN number is needed to sell your book through online or offline booksellers. Each edition of a book, whether in paperback, hardcover, eBook, audio, or other such form, requires a separate ISBN. This number, which is also embedded in the bar code on the book, allows libraries and booksellers to find information about the author, the title of the book, the price of the book, and other related information. The ISBN attached to the book lists the publisher as the party to contact for information.



Therefore, the ISBN is simply a product code, used by publishers, booksellers and libraries for ordering, listing and stock control purposes. It enables them to identify a particular publisher and allows the publisher to identify a specific edition of a specific title from their product range.

You only need an ISBN if you plan to sell your book in shops or if you wish to distribute it to libraries.

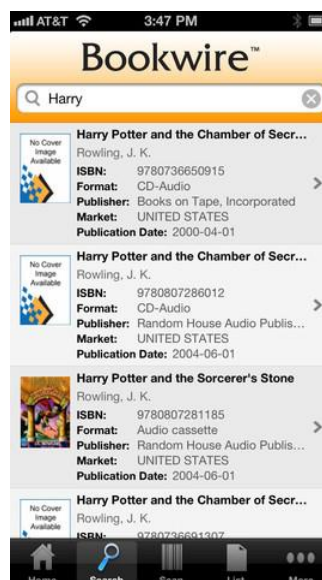
2.2.2. Books In Print (www.booksinprint.com)

Bowker is the world's leading provider of bibliographic information and management solutions designed to help publishers, booksellers, and libraries better serve their customers. Creators of products and services that make books easier for people to discover, evaluate, order, and experience, the company also generates research and resources for publishers, helping them understand and meet the interests of readers worldwide. Bowker, a ProQuest affiliate, is the official ISBN Agency for the United States and its territories and is headquartered in New Providence, New Jersey with additional operations in England and Australia.

Bowker provides a variety of bibliographic databases that can be used within public and academic libraries, providing customers with information through its powerful search and discovery tools while also providing the buyer the collection development tools designed to streamline the acquisition process.

Books In Print is one of Bowker's leading products: a bibliographic database of over 7.5 million US book, audio book, and video titles, as well as 12 million international titles, currently in print and information on forthcoming and out-of-print books. It also offers: reviews; tables of contents; cover images; author biographies; awards information; and annotations.

Bowker Bookwire is another product by Bowker. It is a free mobile app that serves the needs of users searching for books – consumers, librarians, and booksellers, using an iPhone, iPad, or Android device.



Source: <http://goodereader.com/blog/e-book-news/bowker-bookwire-app-lets-you-get-book-data->





[on-the-go](#)



3. Location: OPACs

An online public access catalogue (often abbreviated as OPAC or simply library catalogue) is an online database of materials held by a library or group of libraries. Users search a library catalogue principally to locate books and other material available at a library.

Although a handful of experimental systems existed as early as the 1960s, the first large-scale online catalogues were developed at Ohio State University in 1975. Throughout the 1980s, the number and sophistication of online catalogues grew. Library catalogues began providing improved search mechanisms, including Boolean and keyword searching. At the same time, libraries began to develop applications to automate the purchase, cataloguing, and circulation of books and other library materials. These applications, collectively known as an integrated library system (ILS) or library management system, included an online catalogue as the public interface to the system inventory. Most library catalogues are closely tied to their underlying ILS system.

In the 1990s, organisations outside of libraries began developing more sophisticated information about retrieval systems. Web search engines like Google and popular e-commerce websites such as Amazon.com provided simpler to use (yet more powerful) systems that could provide relevancy-ranked search results using probabilistic and vector-based queries.

Prior to the widespread use of the Internet, the online catalogue was often the first information retrieval system library users ever encountered. Now accustomed to web search engines, newer generations of library users have grown increasingly dissatisfied with the complex (and often arcane) search mechanisms of older online catalogue systems.

The newest generation of library catalogue systems are distinguished from earlier OPACs by their use of more sophisticated search technologies, including relevancy ranking and faceted search, as well as features aimed at greater user interaction and participation with the system, including tagging and reviews. These new features rely heavily on existing metadata which is often poor or inconsistent, particularly for older records.

These newer systems are almost always independent of the library's integrated library system (ILS), instead providing drivers that allow for the synchronisation of data between the two systems. While older online catalogue systems were almost exclusively built by ILS vendors, libraries are increasingly turning to next-generation catalogue systems built by enterprise search companies and open-source projects, often led by libraries themselves. The costs associated with these new systems, however, have slowed their adoption, particularly at smaller institutions.

3.1. Spanish public libraries <http://www.bibliotecaspublicas.es/>

The Spanish public library is a network deeply connected with the cultural life of Spanish society. Whatever their level (public libraries, universities, schools, specialised, national and regional), libraries coordinate and make up networks or cooperative systems that exchange



information, stimulate joint initiatives and work to offer better services to the public. Through their proximity, accessibility and services adapted to the needs of various users, libraries are a source of information and knowledge access points.

Over the last 30 years unprecedented development has occurred²⁵ and nowadays there are more than 6,000 active institutions. Buildings have been renovated and more library resources and facilities are attracting more active users. Libraries currently provide more than 25,000 jobs in Spain. New technologies have been implemented and users can make use of more effective sources and tools for accessing information. Automated catalogues, Internet queries together with free Internet access enable numerous users to understand libraries as basic information access points.

It is important to note the support provided by the Law 10/2007 of 22 June, on reading, books and libraries, which governs the Spanish Library System.

Through **Hispana**, which brings together the digital collections of archives, libraries and museums promoted by the European Union, the digital libraries of the regions and other local digital libraries contribute their content to **the Europeana Local Project**, in which the Ministry of Education, Culture and Sports participates as a national coordinator, together with 32 other institutions from 26 countries.

3.2. Spanish University Libraries Network (<http://www.rebiun.org/>)

REBIUN is the acronym which stands for Spanish University Libraries Network operating from 1998 and comprising 50 state-funded universities, 25 private universities and the Spanish National Research Council (CSIC).

The current version of REBIUN's Collective Catalogue is available to the public through the Internet. It has approximately 13 million records belonging to more than 31 million locations in monographs (not series) and to more than 700,000 locations of periodic publications.

☺ REBIUN Statistics offer libraries the possibility of accessing annual reports about key indicators as to their libraries in reference to the rest of the university libraries in Spain. Generate the graphics of the number of users for the library catalogue during the last year of data gathering for the University of Alicante and compare them with the rest of libraries. Can you make any conclusions about the percentages obtained?

<http://estadisticas.rebiun.org/cuestionarios/indicadores/Graficas/Servic.4.2012.htm>

3.3. National Libraries Catalogues (www.theeuropeanlibrary.org)

The European Library is an online portal offering quick and easy access to the collections of 48 national libraries of Europe and leading European research libraries. Users can cross-search and reuse more than 23 million digital items and more than 160 million bibliographic records. Searching is free and delivers metadata records as well as digital objects, mostly free of charge.

²⁵ According to the available surveys, in 1980 just 7.5% of the population went to the library. In 2010 that percentage had increased to 39.2% or two in five Spanish citizens.



The objects come from institutions located in countries which are members of the Council of Europe and range from catalogue records to full-text books, magazines, journals and audio recordings. Over 200 million records are searchable, including 24 million pages of full-text content and more than 7 million digital objects. Thirty-five different languages are represented among the searchable objects.

The European Library is an independent not-for-profit library services organisation supported by CENL, LIBER and CERL. The European Library importantly works to strengthen and support libraries across the continent. Member libraries benefit from a powerful, low-cost aggregation structure enabling a greater exposure of digital resources and bibliographic records.

The European Library's mission is to be THE open data hub for library data in Europe. Additionally, The European Library partakes in projects to create useful tools and a pan-European infrastructure for librarians and researchers. Examples of their many successful projects include Enumerate, ARROW and Europeana Newspapers.

Their most recent project, *Europeana Cloud*, is to establish a cloud-based infrastructure that will enable easy sharing, enhancement and storage of content and data across the European family of services, interested libraries and other content providers and aggregators.

3.4. IFLA (www.ifla.org)

The International Federation of Library Associations and Institutions (IFLA) is the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession.

It was founded in Edinburgh, Scotland, on 30 September 1927 at an international conference. It now has 1500 Members in approximately 150 countries around the world. IFLA was registered in the Netherlands in 1971. The Royal Library, the national library of the Netherlands, in The Hague, generously provides the facilities for its headquarters.

IFLA is an independent, international, non-governmental, not-for-profit organisation, whose main aims are to promote high standards of library and information services and to encourage understanding of the value of good library and information services.

3.5. Library of Congress Catalog (catalog.loc.gov/)

It contains 18 million catalogue records for books, serials, manuscripts, maps, music, recordings, images, and electronic resources. You can search these records by keyword or browse by authors/creators, subjects, name/titles, uniform titles, and call numbers. Browse lists also include searching aids such cross-references²⁶ and scope notes²⁷.

²⁶ Cross-reference search refers to the possibility of relating information elsewhere in the same document, in both printed and online materials.

²⁷ This is a note under the subject heading that explains and clarifies what is meant and what is not meant in the definition of the term and in its use as a subject heading. If you are interested in knowing more about it, check the example provided at: <http://lili.org/forlibs/ce/able/course6/08scopenotes.htm>



Library of Congress cataloguing dates back to 1898. The Online Catalog includes many early records (primarily for books and periodicals) created by the Library between 1898 and 1980. These records –originally maintained in a separate database– are gradually being updated to reflect contemporary language and usage. Names and subjects found on older records often contain the legend [from old catalog] to indicate possible deviations from current LC practices. In addition, records for some materials catalogued before 1980 are only available to researchers onsite in the Library's Main Card Catalog.

Items in the Library's special collections are generally described as aggregations rather than individually identifying each specific item. LC Online Catalog records for many archival collections are linked to more detailed guides searchable in the Finding Aids system. Records for the Library's still images can be found in the Prints and Photographs Online Catalog; records for portions of Library recordings can be searched in SONIC (Sound Online Inventory and Catalog). Databases, e-journals, and e-books accessible onsite –including items found in fee-based online services– are linked through the E-Resources Online Catalog.

In May 2014, the Library implemented a new user interface to the LC Online Catalog. The old user interface will eventually be retired, but in the interim it remains available at: catalog2.loc.gov. There were several factors behind this migration decision of making the LC online catalogue accessible to all users.

The Catalog's new interface is accessible to all Library patrons including those with disabilities. The Library's experts in assistive technology tested the design with screen readers such as Window-Eyes and JAWS to ensure that patrons who prefer those tools have full access to Catalog functionality. The old user interface did not meet the requirements of the Americans with Disabilities Act (ADA). This interface revision supports the Library's mission to make its resources available to Congress and the American public.

3.6. WorldCat (<http://worldcat.org/>)

Although library catalogues typically reflect the holdings of a single library, they can also contain the holdings of a group or consortium of libraries. These systems, known as union catalogues, are usually designed to aid the borrowing of books and other materials among the member institutions via interlibrary loan. A clear example of this type of catalogue is WorldCat, the largest bibliographic catalogue all over the world.

WorldCat is a union catalogue that itemises the collections of 72,000 libraries in 170 countries and territories which participate in the Online Computer Library Center (OCLC) global cooperative. It is built and maintained collectively by the participating libraries.

The catalogue was created in 1971. It contains more than 300 million records, representing over 2 billion physical and digital assets in more than 470 languages, as of January 2014.]It is the world's largest bibliographic database. OCLC makes WorldCat itself available for free to libraries, but the catalogue is the foundation for other fee-based OCLC services (such as resource sharing and collection management). WorldCat was founded by Fred Kilgour in 1967.



WorldCat libraries are dedicated to providing access to their resources on the Web, where most people start their search for information. WorldCat searches many libraries at once for an item and then locates it in a library nearby. It can help you find books, music and videos together with research articles and digital items that can be directly viewed or downloaded.

In 2003, OCLC began the "Open WorldCat" pilot programme, making abbreviated records from a subset of WorldCat available to partner web sites and booksellers, to increase the accessibility of its member libraries' collections. In 2006, it became possible to search WorldCat directly at its website. In 2007, WorldCat Identities began providing pages for 20 million "identities", predominantly authors and persons who are the subjects of published titles.

3.7. Directory of Libraries (www.libdex.com)

LibDex stands for Library Index. LibDex is a worldwide index of library catalogues, libraries and books from around the world. The site contains basic information about the library (website, e-mail, address, phone number/fax, etc.). Users of LibDex can contribute updated information to the site by clicking the update hyperlink under a library entry.

4. Electronic books

An electronic book (eBook, ebook or e-book), refers to a book sold on floppy disk, CD-ROM, or downloaded from a site (Chowdury and Chowdury, 2001: 125). Also described as an electronic version of a printed book, it has been defined as a book-length publication in digital form, consisting of text, images, or both, readable on computers or other electronic devices²⁸.

In 2010, e-books increasingly gained markets. Many e-book publishers began distributing books that were in the public domain. At the same time, authors with books that were not accepted by publishers offered their works online so they could be seen by others.

Writers and publishers have many formats to choose from when publishing e-books. Each format (EPUB, PDF, MOBI, RTF, and so on) has advantages and disadvantages.

The most popular e-book readers are Amazon Kindle, Nook Readers, Apple iPad, Sony Reader, Kobo eReaders, PocketBook Readers, etc.

Therefore, an eBook can refer both to the electronic appliance that lets you store, reproduce and read books²⁹ and to the book in a determined format ready to be read on a specific device.

4.1. Google Books vs. the Open Book Alliance.

²⁸ Gardiner, Eileen and Ronald G. Musto. "The Electronic Book." In Suarez, Michael Felix, and H. R. Woudhuysen. *The Oxford Companion to the Book*. Oxford: Oxford University Press, 2010, p. 164.

²⁹ According to the Merriam-Webster dictionary, an e-book is a book composed in or converted to digital format for display on a computer screen or handheld device, <http://www.merriam-webster.com/dictionary/e-book>



In 2002, Google began digitising books in libraries. In 2004, Google launched Book Search, allowing users to search its database of books. Users could view snippets of copyrighted books, and download and view full copies of public domain books.

The Open Book Alliance, a consortium that includes non-profit author groups, library institutions, and Google rivals Amazon, Microsoft, and Yahoo, launched in 2009 to insist that any mass book digitisation and distribution effort must be open and competitive.

Kalev Leetaru (2008) shows that, when compared side-by-side, Google Books and OCA (Open Content Alliance) are actually not that dissimilar. While the academic community has condemned the proprietary Google, all is not always as it seems. Leetaru states that Google achieves greater transparency in many regards, while OCA's operational reality is more proprietary than it is often thought³⁰.

4.2. Commercial eBook Platforms.

4.2.1. Amazon

The leading actor in the e-book market, Amazon.com, also dominates the US retail market for printed books. In 2011, more than 70 percent of e-book buyers used the store to buy e-book titles, an increase of 60 percent over the previous year.

4.2.2. Barnes & Noble (www.barnesandnoble.com)

Barnes & Noble is the largest retail bookseller in the United States, and the leading retailer of content, digital media and educational products in the country. Barnes & Noble operates mainly through its Barnes & Noble Booksellers chain of bookstores (it is the last remaining national bookstore chain). The company's headquarters are at 122 Fifth Avenue in New York City. The first bookstore opened in 1917.

The company is known for large retail outlets, many of which contain a café serving Starbucks Coffee. Most stores sell books, magazines, newspapers, DVDs, graphic novels, gifts, games, music, and Nook eReaders and tablets.

Barnes & Noble Nook is a suite of electronic book readers developed by the company based on the Android platform. The first device was released in November 2009 for \$259. On 21 June, 2010 Barnes & Noble reduced the Nook's price to \$199, as well as launched a new Wi-Fi-only model, for \$149 and released a Nook coloured touch screen for \$249.

The Nook competes with the Amazon Kindle, Kobo eReader and Sony Reader. Some Nook models feature a 6-inch or 7-inch touch screen. Version 1.3 of the Nook introduced Wi-Fi connectivity, a web browser, a dictionary, chess and sudoku games and a separate, smaller colour touch screen that serves as the primary input device. The Nook also

³⁰ Leetaru, K. (2008) Mass book digitization: The deeper story of Google Books and the Open Content Alliance, *First Monday*, Volume 13, Number10, available at <http://firstmonday.org/article/view/2101/2037>



features a Read in Store capability that allows visitors to stream and read any book for up to one hour while shopping in a Barnes & Noble Store.

The licence agreement with which Barnes & Noble sells eBooks to consumers has been overtly criticised, pointing out that the rights to re-download a purchased eBook expire when the customer's credit card expires and a valid credit card must be added to the account to restore this functionality.

In June 2014, the company announced a partnership with Samsung Electronics to make Nook tablets.

4.2.3. Sony Reader (www.sony.com)

Every company has a decision to make when it produces an eReader: include a traditional, physical keyboard, or opt for a modern touch screen display. Sony has gone with the latter, opting for on-screen navigational controls that are context-sensitive and activated by a user's touch. That's fine for users who are used to touch-based smartphones and tablet devices, but new users will find the transition difficult to make. It can be made, however, and users may come to prefer context-sensitive controls on screen rather than fixed, physical keyboard controls over time.

The Sony Reader supports most major textual formats, including the ubiquitous PDF format found in many independent bookstores. However, it doesn't support the popular DOC format found in Microsoft Office, and this may be an issue for customers who need to read documents on the go and would prefer not to carry a laptop along with them. This eReader, like many others, supports all major image formats and will display them in monochrome on its eInk screen.

Supported Text Formats:	EPUB, PDF, TXT, BBW
Supported Image Formats:	JPEG, PNG, GIF, BMP

Source: Minkowski Institute Press <http://manybooks.net/ereaders/sony-reader-e-reader-review/>

4.2.4. The eBook market in Spain

The Spanish publishing market, and, as a consequence, the eBook market in Spain, is shaped by several paradoxical parameters according to the report *The Global eBook Market*³¹ Spain is a medium-sized European market closer to a country like Poland than to Germany for example. However, Spanish is the first language for 650 million people worldwide.

The domestic publishing sector is populated by mainly small and medium-sized publishing houses, but it is increasingly defined by three main groups: Planeta, Santillana and Random House/Mondadori.

³¹ *The Global eBook Market: Current Conditions & Future Projections* (2011), pages 19-21, http://www.publishersweekly.com/binary-data/ARTICLE_ATTACHMENT/file/000/000/522-1.pdf



In this environment, eBooks are a new niche segment. The digitisation of books is one of the most strategic decisions that publishers have to make these days. Anyway, paper and electronic will probably co-exist in the future. In the research by Cordón-García (2010), even by 2020 most Spanish publishers expect that print will still be their main source of income.

Libranda (www.libranda.com) was founded in March 2010. It is an eBook distribution platform which currently is thought to own 60 percent of the Spanish eBook market. For online retail direct to readers, the strongest brands are *Casa del Libro*, the Spanish branch of French retailer Fnac as well as *El Corte Inglés*. On average, eBooks sell at a price that is 30 to 35 percent less than the printed edition of a title.

4.2.5. Todoebook (www.todoebook.com)

Todoebook is the first platform of Spanish eBooks in the world and the first one offering eBooks in Europe. It started in 2001 as a pioneering initiative. The eBooks are kept stored in your personal eLibrary in the cloud, so you only need Internet connection to get them anywhere from any portable equipment with Adobe ID.

4.2.6. Laie (www.laie.es)

This bookstore has several locations in Barcelona, the main one being at Pau Claris street near the Passeig de Gràcia. Laie bookstores definitely do not fall into the usual “chain bookstore” category, since the places for them are nice and distinct locations. Possibly the only objection to these charming bookstores is their rather limited stock of English titles. If you are looking for a good selection of titles in either Spanish or Catalan, then it can be highly recommended.

4.2.7. Unebook (www.unebook.es)

The University of Las Palmas de Gran Canaria (ULPGC) is responsible for unebook.es platform, that has been recently presented (2 October 2014). Spanish university publishers have joined this initiative for the Spanish university market: there are more than 66 scientific editorials taking part in it.

4.3. Legal issues in eBooks and electronic publishing

Many authors, traditional print publishers and organisations are now into the eBook business. E-book publishers must be aware of several copyright issues relating to such things as cover artwork, tables, maps and charts, and excerpts of works to be included in their eBook³². It is important to look at the following copyright issues when electronically publishing a book.

4.4. DRM (Digital Rights Management)

The term is also sometimes referred to as copy protection, copy prevention, and copy control, although the correctness of doing so is disputed. DRM is a set of access control technologies

³² <http://www.copyrightlaws.com/digital/copyright-issues-in-e-books-and-electronic-publishing/>



used by many companies such as Amazon, AT&T, AOL, Apple, Google, Microsoft, Electronic Arts, Sony and Valve Corporation to help the copyright holder maintain artistic control and therefore ensure continued revenue streams.

The use of DRM is not universally accepted. Some content providers claim that DRM is necessary to fight copyright infringement, to prevent intellectual property from being copied freely. Those opposed to DRM argue that there is no evidence that DRM really helps prevent copyright infringement.

Digital locks placed in accordance with DRM policies can also restrict users from exercising their legal rights under copyright law, such as backing up copies of CDs or DVDs, lending materials out through a library, accessing works in the public domain, or using copyrighted materials for research and education under fair use laws and under French law. The Electronic Frontier Foundation (EFF) and the Free Software Foundation (FSF) consider the use of DRM systems to be anti-competitive practice.

5. Digital libraries

A digital library is a collection of documents in organised electronic form, available on the Internet or on CD-ROM (compact-disk read-only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos.

The terms digital library and electronic library are used interchangeably, though the latter is more popular in the UK. The type of information that a digital library handles ranges from text, numerical data, figures, photographs, maps, slides, to music, video and films.

5.1. Questia (www.questia.com)

Located in downtown Chicago, Questia is the premier online research and paper writing resource. Since its founding in 1998, Questia has helped students find and cite high-quality, scholarly research. With emphasis on subjects related to the humanities and social sciences, Questia provides the resources needed to complete most college-level, core-curriculum course assignments.

The Questia library contains books and journal articles on subjects such as history, philosophy, economics, political science, English and literature, anthropology, psychology, and sociology. It also includes magazine and newspaper articles.

5.2. Ebrary (www.ebrary.com)

Founded in 1999, long before e-books were popular, ebrary is a ProQuest business located in Palo Alto, CA, USA. It is an online digital library of full texts of over 700,000 scholarly e-books available at many academic libraries. It provides a set of online database collections. At the end of 2009 it had 2,700 subscribers (mostly libraries). Users gain access through a subscribing library and can view, search, copy and print documents from their computers.

5.3. Project Gutenberg (www.gutenberg.org)



Project Gutenberg offers thousands of free eBooks (epub books and kindle books) that anyone can download or read online. All the e-books at Project Gutenberg were previously published by bona fide publishers³³. No fee or registration is required. It is a voluntary effort to digitise and archive cultural works in long-lasting, open formats.

The project was founded in 1971 by Michael S. Hart. It is the oldest digital library that exists nowadays. Most of the items in its collection are full texts of public domain books. In March, 2014, it claimed over 45,000 items in its collection. Most releases are in the English language. The slogan of the project is to break down the bars of ignorance and illiteracy”, just as public libraries began to pursue similar goals in the late 19th century.

Project Gutenberg is intentionally decentralised. There is no selection policy dictating what texts to add. Instead, individual volunteers work on what they are interested in, or have available. Most of the texts distributed by Project Gutenberg tend to be licensed under Creative Commons.

5.4. World Digital Library (www.wdl.org)

The World Digital Library is a cooperative project of the Library of Congress, the United Nations Educational Scientific and Cultural Organization (UNESCO), and partner libraries, archives, and educational and cultural institutions from the United States and around the world. The project brings together on a single website rare and unique documents – books, journals, manuscripts, maps, prints and photographs, films, and sound recordings – that tell the story of the world’s cultures. The site is intended for general users, students, teachers, and scholars.

The website is somewhat interactive and provides a wealth of information on various topics in the subjects of history, social studies, and geography.

Content: The website’s homepage opens with a world map. Then a person can click on any country, where he or she will be lead to another page. On this page, the viewer can search many different topics and sort these by time period, subject, or type of item. Once an item is chosen, the viewer can read an informational page about the topic. Many of these pages contain at least one picture and other resource links.

Strengths: The website has many research topic choices and can be a great place to skim the surface on a topic being studied by students in class. It is also a good tool for a person who simply loves history and wants to browse. Additionally, the website is easy to navigate.

Weaknesses: The website focuses solely on topics in history and social studies. Some content may be limited for certain areas that do not have many posts.

5.5. Europeana (europeana.eu)

It is an internet portal that acts as an interface to millions of books, paintings, films, museum objects and archive stuff that have been digitised throughout Europe. It was launched in

³³ Latin, literally, in good faith, made in good faith without fraud or deceit <a *bona fide* offer to buy a farm> <http://www.merriam-webster.com/dictionary/bona%20fide>



November 2008 by the Europeana Foundation with members such as the Rijksmuseum in Amsterdam, the British Library or the Louvre. You can check through this portal great achievements of Europe's cultural and scientific heritage such as the music of Mozart, the works of Isaac Newton and Charles Darwin, and unique paintings.

The catalyst for Europeana was a letter sent by Jacques Chirac, President of France to the President of the European Commission, Durão Barroso, in April 2005. The letter recommended *the creation of a virtual European library*, to make Europe's cultural heritage accessible for all.

The project that began the building of Europeana was called **the European Digital Library Network (EDLnet)**. It was funded by the European Commission under its eContentplus programme, one of the research and development funding schemes.

Some of the Europeana Group projects are:

- **The European Library** (<http://www.theeuropeanlibrary.org/tel4/>) an Internet service that allows access to the resources of 48 European national libraries.
- **Europeana 1914-1918** – untold stories & official histories of WWI (<http://www.europeana1914-1918.eu/en>) It is a major project to digitise and publish primary and secondary sources on the First World War. The collection mixes resources from libraries and archives across the globe with memories and memorabilia from families throughout Europe.
- **The European Film Gateway (EFG)** <http://www.europeanfilmgateway.eu/> is a single access point to the digitised holdings of historical European film documents from numerous film archives and *cinémathèques*, including over 600,000 individual objects from over 60 collections. The European Film Gateway gives access to images, textual materials, and moving images. The vast contents include film stills, set photos, posters, set drawings, portrait photographs, scripts, correspondences, film censorship and visa rulings, out-of-print books, film programmes and reviews, as well as newsreels, documentaries, commercials, and feature films. The portal facilitates access to the archives which hold the original materials.

There are many more projects that haven't been carried out yet by the Europeana, such as **3D ICONS** digitising archaeological monuments and buildings in 3D, **EURO-Photo** digitising photographs from news agencies, **thinkMOTION** gathering content from the field of motion systems or **EUscreen** contributing television material to Europeana, and many more that will probably come out in a near future.

5.6. Hispana (<http://hispana.mcu.es>)

This website, promoted by the Ministry of Culture in Spain, offers access to **5,071,542** digital objects of **207** repositories. It started in March 2010 as a service to users providing a Directory of digital collections together with the collective catalogue of the Digital Network of Spanish Museum Collections. It is therefore a tool that provides coordination of the digitisation projects being carried out in Spain, thus preventing the digitisation of the same work twice.

It is the first service of this type developed in Spain, and it can be considered the Spanish version of Europeana, an aggregator for digital collections. This initiative follows the recommendations of the European Council on digitisation, online accessibility to cultural material and digital conservation, published in the Official Journal of the European Union on 24 August 2006.



Part II: Documentation in Advertising: Information Sources and Information Applied to Scientific Research.

V. DOCUMENTATION IN ADVERTISING: INFORMATION SOURCES

1. Multi-disciplinary Databases

A multi-disciplinary approach of study or research involves getting information from multiple disciplines. A multi-disciplinary approach to problem solving means working outside of normal boundaries, sometimes of the area of expertise. This approach has recently become of interest to professionals who recognise the advantages of systems thinking for complex problem solving. Also the term *interdisciplinary* is used in the same context. Multi-disciplinary tends to relate to practitioner-led working while interdisciplinary tends to carry a more academic overtone.

1.1. Web of Science

Thomson Reuters Corporation is the world's leading source of intelligent information for businesses and professionals. It is a multinational media and information firm founded in 2008 in Toronto, Canada, and based in New York City (headquarters in 3, Times Square). The company operates in more than 100 countries, and has more than 60,000 employees around the world.

One of the most interesting products provided by Thomson Reuters in the field of scholarly search and discovery is **Web of Science** (formerly ISI Web of Knowledge), today's premier research platform for information in the sciences, social sciences, arts, and humanities.

1.2. SCOPUS

Elsevier is a world-leading provider of information solutions that enhance the performance of science, health, and technology. It was founded in 1880 and it is based in Amsterdam. The leading publishing firm publishes medical and scientific literature. The company employs more than 7,000 people in 24 countries.



Source: <http://en.wikipedia.org/wiki/Elsevier#mediaviewer/File:Elsevier.svg>





One of its best products is **Scopus**, the largest abstract and citation database of peer-reviewed literature: scientific journals, books and conference proceedings. Delivering a comprehensive overview of the world's research output in the fields of science, technology, medicine, social sciences, and arts and humanities, Scopus features smart tools to track, analyse and visualise research.

1.3.ISOC (Social Sciences and Humanities)

CINDOC, the Centre for Scientific Information and Documentation in Spain, belongs to the Higher Council for Scientific Research (CSIC, *Consejo Superior de Investigaciones Científicas*). CINDOC has created several databases and ISOC is one of its databases, containing scientific production in the areas of human and social sciences published in Spain from 1975 onwards. It has 2,554 journal titles and more than 600,900 entries in Social Sciences and Humanities. This multi-disciplinary database comprises bibliographic references from Spanish academic articles with a lot of information on intercultural education. One of its main features is the organisation of the documents' content which has been structured in more than 20 fields that can be used as search words. It covers, therefore, the following fields: Economics, Sociology, Political Science, History, Law, Learning Sciences, Psychology, Urban Studies, Geography, Fine Art, Linguistics, and Literature. The updating is different for each field.

2. Specialised Databases

Specialised databases are indexes that can be searched, much like the search engines. The main difference is that specialised databases are collections on particular subjects, such as *MathEduc* database, which covers journal article abstracts and citations about Mathematics research and teaching methodology or *Aedemo*, which is a database about business management and marketing research. You can find information in specialised databases that you often would not locate by using a global WWW search engine. If you know there is a specialised database on the subject you are researching, using that database can save you time and give you reliable, up-to-date information. Some of the databases on Advertising and Public Relations subscribed by the University of Alicante are the following:

2.1.TV-Anuncios (www.tvanuncios.com)

TV Anuncios is a database of television spots, especially Spanish, daily updated. It started in 2009 and contains over 2,600 ads with its credits covering the last two decades of advertising in Spain. It also provides news about the world of advertising and information about agencies, production companies and brands. Also, lists of awards and winners from different advertising festivals.

The ads are reproduced in the browser with a *Flash player*. You can also download them to your computer, with a **.mov** extension, and view them with *QuickTime* or other program that accepts this extension.



2.2. INFOADEX (www.infoadex.es)

InfoAdex is the most important database about advertising in Spain. It provides information about the control and analysis of advertising in the Spanish geographical area. It is divided into six sections:

- campaigns of social interest,
- beauty and hygiene,
- home,
- transport,
- travel and tourism,
- automobiles

InfoAdex collects all advertising spots broadcast in the conventional media: television, magazines, newspaper special editions, Sunday editions, radio, cinema, Internet and outdoor advertising. It has got a section about study research containing reports and ad hoc analysis of the Spanish advertising industry, advertising investment and the main agencies and trends. The University of Alicante is subscribed to the teaching module (covering four sectors from 1999). It collaborates with the INE (Spanish Statistical Office) and with some other institutions. *InfoAdex* is the leader in the control of advertising activity in Spain, providing exhaustive and daily information on investment, inserts, occupation and creativity. The company started in 1994 with the merging of Duplo and Repress, which represent 60% of the investors. Nowadays, the remaining 40% of the company belongs to the multinational Kantar Media.

InfoAdex is the benchmark for the advertising Spanish market, providing information of great interest for advertising and marketing professionals to be properly updated.

3. E-Journal Portals

In recent years there has been a rapid increase in the number of e-journals, and they now form a significant part of any library's collection. The future of the academic journal –regarding format– seems to be definitely online.

The journal has gone online, and users expect to access articles in this way, whether at their place of work or study, or remotely from home. There is a growing trend of online-only journals and this will continue, providing cost savings to users' institutions and journal publishers. (Cope & Phillips, 2011: 1)

The term electronic journal can mean many things, ranging from a distribution format for a print journal or an electronic archive of a print journal to a journal published exclusively in an electronic format. According to Jones (1999: 29), "although people use different names for electronic journals it is a fact that they are available electronically via a computer or a computer network, that they may or may not be published in some other (physical) medium, but that they are not CD-ROMs or diskettes".

The main features of e-journals could be described as the following:





- the text can be read by more than one person at a time,
- the text can be searched
- they can include multimedia and graphics, in colour, they can make use of hyperlinks and they can be interactive
- they can be published more quickly than paper publications,
- articles can be retrieved directly through links from abstracting and indexing databases,
- contents can be reproduced, forwarded, and modified, leading to possible problems with copyright protection and preserving authenticity.

The main disadvantages of e-journals is that they require specialised equipment (computers and communication facilities) for reading and the fact that libraries and users do not own the journals, they obtain an access right for a specific period of time.

Access to electronic journals is provided either by publishers themselves or aggregators.

EBSCO Online is an aggregator that provides access to full-text articles from over 4000 scholarly journals, containing over 1 million full-text articles.

JSTOR is a publisher, an independent not-for-profit organisation which started in August 1995. Originally containing digitised issues of academic journals, nowadays it also includes books, primary sources together with current issues of journals. It provides full-text searches of almost 2,000 journals. More than 8,000 institutions in more than 160 countries have access to JSTOR, which is the short form for *Journal Storage*.

3.1. PROQUEST (www.proquest.com)

ProQuest is an information and data provider company founded in 1938 in Ann Arbor, Michigan. The company provides applications and products for libraries. It is one of the most important models in the field of research and learning publishing and in the dissemination, acquisition, management and discovery of library collections.

3.2. DIALNET (www.dialnet.unirioja.es)

DIALNET is an important portal for the dissemination of Spanish scientific production that started working in 2001, specialised in Humanities and Social Sciences. It was created by the University of La Rioja (Spain) and it has got a virtual library containing the index of scientific and humanistic journals from Spain, Portugal and Latin America. It also includes books (monographs), doctoral theses and other types of documents, most of them available full text online. Dialnet is top place in the ranking of European portals and the fourth place worldwide according to the ranking of the Cybermetrics Laboratory of the CSIC (Spanish Council for Scientific Research)³⁴.

4. Journals

³⁴ Ranking web de repositorios, available at http://repositories.webometrics.info/es/top_portales



As has been stated before, the term electronic journal can mean many things, ranging from a distribution format for a print journal, an electronic archive of a print journal to a journal published exclusively in an electronic format. Although people use different names for electronic journal it is a fact that “they are available electronically via a computer or a computer network, that they may or may not be published in some other (physical medium, but that they are not CD-ROMs or diskettes” (Jones, 1999: 29). Nowadays there are two major categories of e-journals: those that have their printed counterparts, and those that are available only in electronic format.

The most characteristic features of e-journals can be summarised as follows:

- The can be read by more than one person at a time,
- The text can be searched,
- They can include multimedia and graphics, in colour,
- They can be published more quickly than paper publications,
- They can be interactive, make use of hyperlinks (both internally and to other publications),
- They can be retrieved directly through links from abstracting and indexing databases,
- The content can be reproduced, forwarded, and modified.

The main disadvantages of e-journals are that they require specialised equipment (computers and communication facilities) for reading, and also, that libraries and users do not own the journals, they obtain an access right for a specific period of time.

In recent years there has been a rapid increase in the number of e-journals, and they now form a significant part of any library's collection.

Access to electronic journals is provided either by publishers or by aggregators.

EBSCO is an aggregator that provides access to full-text articles from over 4000 scholarly journals, containing over 1 million full-text articles. JSTOR is an example of a publisher: an independent not-for-profit organisation founded in 1995 which currently covers various disciplines including arts and sciences, general science, and ecology and botany. Access to the full JSTOR database is available only through affiliation with a participating institution.

☺ Explore the homepage, origins and main features of the following electronic journal publishers and aggregators:

HighWire Press

Swetsnetnavigator

Project Muse

IDEAL (the International Digital Electronic Access Library)

D-Lib Magazine

BUBL Journals

4.1. The Journal Impact Factor and How to measure it

The impact factor (IF) of an academic journal is a measure reflecting the average number of citations to recent articles published in the journal. It is used to show the relative importance of a journal in an area of knowledge. Usually, journals with higher impact factors are



considered more important than journals with lower impact factors. Impact factors are calculated yearly.

In any given year, the impact factor of a journal is **the average number of citations received per paper published in that journal during the two preceding years**³⁵. For example, if a journal has an impact factor of 3 in 2008, then its papers published in 2006 and 2007 received 3 citations each on average in 2008. The 2008 impact factor of a journal would be calculated as follows³⁶:

A = the number of times that all items published in that journal in 2006 and 2007 were cited by indexed publications during 2008.

B = the total number of "citable items" published by that journal in 2006 and 2007. ("Citable items" for this calculation are usually articles, reviews, proceedings, or notes; not editorials or letters to the editor).

2008 impact factor = A/B .

(Note that 2008 impact factors are actually published in 2009; they cannot be calculated until all of the 2008 publications have been processed by the indexing agency).

The *Thomson-Reuters Impact Factor* only counts citations in the two years after an article is published. Following Lawrence (2007), "truly original work usually takes longer than two years to be appreciated – the most important paper in biology of the 20th century was cited rarely for the first ten years" (Cope and Kalantzis, 2009: 43).

There has been some controversy and debate on the validity and the appropriate use of the impact factor as a measure of journal importance and the effect of the policies that editors can follow to boost their impact factors. The impact factor is highly dependent on the speed with which papers get cited in an academic field, so they cannot be used to compare journals across disciplines.

The impact factor is based on the arithmetic mean number of citations per paper, which is a statistically inappropriate measure. For example, about 90% of *Nature's* 2004 impact factor was based on only a quarter of its publications. Also, some journal editors may publish for instance a larger percentage of review articles which generally are cited more than research reports or invite exclusively senior scientists to publish citable papers to increase their journal impact factor. Another tactic journals employ is to publish the papers expected to be highly cited early in the calendar year so they can get more citations. Finally, another practice to be mentioned is coercive citation. There is some evidence indicating that coercive citation has been experienced by one in five researchers working in economics, sociology, psychology and other business disciplines.

³⁵ *Journal Citation Reports*, available at <http://thomsonreuters.com/journal-citation-reports/>

³⁶ See *How the Impact Factor is Calculated* with other examples, available at <http://wokinfo.com/essays/impact-factor/>



For all these reasons, when taking into account the IF we should be aware that the quality of the content of individual articles should be assessed, not the reputation of the journal in which articles are being published.

Growing concerns over the inappropriate use of journal impact factors in evaluating scientific outputs and scientists themselves have led to the document called DORA on Research Assessment, released in May 2013, San Francisco, by a group of editors and publishers of scholarly journals in San Francisco.

© Read thoroughly *the San Francisco Declaration on Research Assessment* and reflect about the suggested practices for research assessment to be supported.
<http://www.ascb.org/dora-old/files/SFDeclarationFINAL.pdf>

4.1.1. IN-RECS (www.ec3.ugr.es/in-recs/)

IN-RECS (Impact index of Spanish social-science journals) is a bibliometrics method elaborated by the Research Group C3 and the University of Granada that offers statistical information from an account of the bibliographical citations in the areas of Geography, Psychology, Anthropology, Documentation, Communication, etc., seeking to determine scientific relevance, influence, and impact of Spanish social-science journals, of the authors publishing in these journals, and of the institutions with which the authors are affiliated.

4.1.2. Journal Citation Reports – JCR (Web of Science)

Journal Citation Reports evaluates the world's leading journals, with quantifiable and statistical information based on citation data. By compiling articles' cited references, JCR helps to measure research influence and impact at the journal and category levels, and shows the relationship between citing and cited journals.

It is a recognised authority for evaluating journals, using a combination of impact and influence metrics, and millions of cited and citing journal data points that comprise the complete journal citation network of Web of Science. JCR provides the context to understand a journal's true place in the world of scholarly literature.

JCR is used:

- by librarians, who can support, evaluate and document the value of their library research investments,
- by publishers, who can determine journals' influence in the marketplace, to review editorial policies and strategic direction, monitor competitors, and identify new opportunities,
- by authors and editors that can identify the most appropriate, influential journals in which to publish, and also
- by researchers discovering where to find the current reading list in their respective fields.

Finally, information analysts and bibliometricians can track bibliometrics, citation trends and patterns when using JCR metrics.



4.1.3. SCImago Journal Rank (SJR indicator)

SCImago Journal Rank (SJR indicator) is a free journal metric which uses an algorithm similar to PageRank; it is a measure of scientific influence of scholarly journals that accounts for both the number of citations received by a journal and the importance or prestige of the journals where such citations come from. The SJR indicator has been developed to be used in extremely large and heterogeneous journal citation networks. It is a size-independent indicator, valuing the order of journals by their "average prestige per article" and can be used for journal comparisons in science evaluation processes. It provides an alternative to the impact factor (IF), which is based on data from the Science Citation Index.

4.2. Academic Journals

Journals are a powerful tool of scientific information transfer, the most important one existing at present. Almost all research is being done through them. All forms of scientific communication (congresses, talks, surveys, interviews...) ends up being transmitted thanks to journals.

Professional journal articles are often selected and reviewed by an outside group of scholars. This process is called "peer review", and refers to the fact that an author's professional peers decide whether a research article merits publication. In the world of research, peer-reviewed articles are considered the best.

Professional journal articles begin with an abstract (a summary of the principle methods and conclusions of the research). They then describe the principle being tested, the methods used, the research results, and discuss the results. There is always a bibliography (list of cited works) at the end of a scholarly article.

Journals have the advantage over books of a greater speed in the transmission of information and therefore the immediacy in the availability for the scientific community. However, some difficulty always arises as to bibliographical control of them (changes in the titles of articles, in the address of a publishing house, in names of editorial board staff, periodicity, format...), which means identification, location and acquisition of them can be sometimes difficult for users.

4.2.1. European Journal of Communication (<http://ejc.sagepub.com/>)

European Journal of Communication is a quarterly peer-reviewed academic journal that covers research on communications and media. The journal was established in 1986 and covers all aspects of communication research and theory. European Journal of Communication is abstracted and indexed in Scopus and the Social Sciences Citation Index. According to the Journal Citation Reports, its 2010 impact factor is 1.077, ranking it 21st out of 67 in the category "Communication"³⁷

³⁷ *Journals Ranked by Impact: Communication*. "2010 Journal Citation Reports". *Web of Science* (Social Sciences ed.) (Thomson Reuters). 2011.



Published quarterly, the journal reflects the international character of communication scholarship and is addressed to a global scholarly community. International and rigorously peer-reviewed, it publishes the best of research on communications and media, either by European scholars or of someone of particular interest to them.

Communication science is concerned with the investigation of the structure and function of communication processes and their impact on society, social groups and individuals. *Communications* highlights the concerns of this discipline through the publication of articles, research reports, review essays and book reviews on theoretical and methodological developments considered from a European perspective. The journal encompasses the entire field of communication science as its domain of interest. The contributions published in the journal cover a wide range of subfields in communication science, including interpersonal communication, intercultural communication, mass communication, communication theory, philosophy of communication, media history, media development and communication technology.

4.2.2. International Journal of Advertising (<http://www.internationaljournalofadvertising.com/>)



International Journal of
ADVERTISING

The International Journal of Advertising (IJA)

is a leading peer-reviewed journal of advertising knowledge and marketing communications. It is published four times a year in association with The Advertising Association. It publishes original full text contributions on all aspects of marketing communications from the academic, practitioner and public policy perspectives: advertising and media, direct marketing, sales promotions, sponsorship, public relations and integrated marketing communications. It is a journal which encourages discussion, exchange and cross-fertilisation of ideas.

4.2.3. Journal of Advertising

The Journal of Advertising is a peer-reviewed academic journal covering significant intellectual development related to advertising theories and their relationship with practice. *The Journal of Advertising* is owned by the American Academy of Advertising and published by M.E.Sharpe.

The journal is abstracted and indexed in Communication Abstracts, Current Contents/Social and Behavioral Sciences, Emerald Management Reviews, International Bibliography of the Social Sciences, Journal Citation Reports/Social Sciences Edition, PsycINFO, ProQuest, Scopus, and Social Sciences Citation Index.

4.2.4. Journal of Broadcasting and Electronic Media





The currently known *Journal of Broadcasting & Electronic Media* (1985–current) was formerly known as *Journal of Broadcasting* (1957–1984). It is an international quarterly devoted to advancing research, knowledge, and understanding of communication and the electronic media. The Journal invites submissions of original research that examine a broad range of issues concerning the electronic media, including the historical, technological, economic, legal, policy, cultural, and social dimensions. Scholarship that extends historiography, tests theory, or that fosters innovative perspectives on topics of importance to the field, is particularly encouraged. The Journal is open to a diversity of theoretical paradigms and methodologies.

4.2.5. Philosophy of Photography

Philosophy of Photography is an international peer-reviewed journal published six-monthly in the spring and autumn. The journal's aim is to provide a forum for theoretical and critical debate of issues arising from the historical, political, cultural, scientific and critical matrix of ideas, practices and techniques that constitute photography as a multifaceted and changing form.

In a contemporary context characterised by its diversity and rapid rate of transformation, the conjunction of 'philosophy' and 'photography' in the journal's title is intended to provoke reflection on the ways in which existing and emergent discourses might engage with each other to inform our understanding of the photographic.

4.2.6. The Public Relations Strategist

The Strategist is the only magazine dedicated to executive-level public relations professionals. This quarterly publication provides you with insightful feature-length commentary on the strategic importance of public relations at the management level and views on changing public relations concepts to engage and inform you and your organisation.

Content reflects the current practice of public relations, with anecdotes and ideas displaying how a topic has measurable impact on achieving the strategic goals of your organisation. Crisis communication planning, corporate reputation management, investor relations and many other subjects are addressed by influential thought-leaders in the public relations profession.

Its articles emphasise the growth and change in crucial areas of strategic communications. The *Strategist* will help you lead your organisation effectively as well as advance your own career.

4.2.7. Public Relations Tactics

PRSA's award-winning newspaper brings you the latest news, trends and how-to information about the evolving public relations profession. The monthly tabloid delivers essential tips from experienced public relations practitioners that will help you enhance your job skills and stay competitive in today's marketplace.

Tactics will keep you current on the best practices regarding everything from employee communications and public relations measurement to media relations training and social media.



Its articles reflect the growth and change in crucial areas of professional development that will empower you to advance your career as well as showcase the positive influence of the public relations profession.

4.2.8. The Public Relations Journal

The Public Relations Journal, published by the Public Relations Society of America (PRSA), is an open-access electronic research journal focusing on the fields of public relations and communications. Its purpose is to facilitate the transfer of knowledge from the educational community to the professional community. As an academic journal, it is dedicated to the open exchange of information. As an open-access journal, the research is available to all readers without the need to purchase the articles. All articles undergo rigorous objective academic review. An editorial review board of noted educators and public relations executive reviews articles submitted to the Journal.

5. Professional Magazines

Professional magazines and academic journals share some similarities: both are periodicals, i.e. they come to the library or to your home by subscription periodically on any cycle: weekly, monthly, quarterly, bimonthly, etc. Some journals may advertise products but usually, magazines are the ones which have more extensive graphics and colourful advertising.

Professional magazines are different from academic journals in some important features: they are written by journalists and freelance writers for the general public, they are intended to be used as recreational reading and public information. Publishers of magazines are interested in selling both advertising and magazine, they are reviewed by employees of the magazine. Also, current events and general interest articles in magazines are written to be eye-catching and to keep the reader's attention.

5.1. Advertising Age (adage.com)

Ad Age is the leading global source of news, intelligence and conversation for marketing and media communities. *Advertising Age* is recognised as the leading global source of news, analysis and inspiration for the marketing and media community. Advertising Age includes ongoing coverage of strategic topics for marketers from mid to large companies complemented by breaking news and a database of the world's best creative. The 84-year-old publisher produces more than 15 original rankings each year, including the 100 Leading National Advertisers and 100 Leading Media Companies lists, the Digital A-List, and the annual Agency Report.

5.2. Anuncios (anuncios.com)

In the network from 1996, Anuncios.com was the first web page of a Spanish magazine. Accessible for free it is the site of the madmen of advertising: national and international campaigns, interactive campaigns. Information updated of the big festivals. Of free access, it contains a store of campaigns (New Announcements) with thousands of pieces, accessible only



for the subscribers of Anuncios. The ideal complement of the magazine and of Anuncios Diario. A daily newsletter and also free, takes to users every day the more emphasised production from the national and international creativity.

5.3. Communication Arts (commarts.com)

Communication Arts is the premier source of inspiration for graphic designers, art directors, design firms, corporate design departments, advertising agencies, interactive designers, illustrators and photographers –everyone involved in visual communication. www.commarts.com is the online complement to Communication Arts magazine. Updated daily, Communication Arts is the largest international trade journal of visual communications.

Founded in 1959 by Richard Coyne and Robert Blanchard, the magazine coverage includes graphic design, advertising, photography, illustration and interactive media. Currently, Communication Arts (CA) publishes six issues a year and hosts six creative competitions in graphic design, advertising, photography, illustration, typography and interactive media and two Web sites, commarts.com and creativehotlist.com.

To generate additional income and editorial content, CA began an annual juried competition in 1960. Within a few years, the annual competition grew, and eventually segmented into four annual competitions: graphic design, advertising, photography and illustration. A fifth competition, interactive, was added in 1995. All the CA competitions are juried by respected creative professionals who help to establish the annual competitions as benchmarks for excellence.

5.4. Control (www.controlpublicidad.com)

Grupo Control has got headquarters in Madrid and Barcelona and its awards for the best campaigns of Spanish advertising are the most veteran in the sector from 1969. Advertisers, agencies and suppliers have updated news from the advertising industry in this recognised magazine. Control awards are held annually, being the result of popular voting of the readers of this expert magazine.

5.5. El Publicista (www.elpublicista.es)

El Publicista is a magazine published every fortnight specialised in the world of advertising, communication and marketing. Founded in 1999, it also edits special numbers, extras and **La Guía**, which is a useful Guide of companies in the area of advertising communication. It issues 5,000 copies distributed by subscription, and it has an estimated ratio of 4 readers per copy.

Normally, there are a few fixed topics all along the same year about mass media, or other non-conventional media such as direct marketing, promotional, direct or telephonic advertising, etc.

Annually, there are a few fixed topics dedicated to the principal mass media: television, diaries and supplements, magazines, radio, cinema, exterior and Internet advertising. Or to non-conventional means as direct marketing, e-mail, promotional marketing, direct advertising,



telemarketing, etc. It also offers news from the world of advertising: strategies, economic results, new products, professional changes, and so on. Finally, the magazine shows cases of successful campaigns of different ads in various media, emphasising aspects like creativity, investment, etc. Recollection of famous campaigns and international adverts are also present in the magazine.

5.6. Estrategias de comunicación y marketing

This monthly magazine started in 1992 and ran until 2012 when it joined the Grupo Control (see 4.3.4. above). It can be accessed through DIALNET³⁸. It covers everything happening in the industry of direct, promotional marketing and events.

5.7. Eye: International Journal of Graphic Designs (www.eyemagazine.com)

Eye magazine is an international quarterly review of graphic design for artists and design professionals.

First published in London in 1990, *Eye* was founded by Rick Poynor, a prolific writer on graphic design and visual communication. It is the world's most beautiful and collectable graphic design journal, meant for anyone interested in critical, informed writing about design and visual culture.

© *Eye before you buy* – issue 85. You can get a short flick through some of the pages of *Eye* no. 85 vol 22 at <http://vimeo.com/66804588>

5.8. IPMark: semanario de publicidad y marketing (www.ipmark.com)

IPMark is one of the top Spanish websites in the field of online marketing and advertising. It started in 1962³⁹ and its headquarters are in Madrid and it is now in its 806 issue.

The current importance of the world of marketing, advertising and the media, served day after day across the DIARY IPMARK, the Web and the magazine in paper and online. IPMARK has been consolidated as the magazine that Advertisers and Marketing and Communication managers. Its aim is to be the principal source of specialised, national and international information, for the professionals of advertising and marketing.

5.9. Visual (visual.gi)

Visual is a space opened for creators and communicators, reflection of a sector where changes happen with rapidity and where to try to establish limits and categories lacks sense. The technologies, resources and means of expression today combine and are overlapped, evolve,

³⁸ Estrategias de comunicación y marketing, available at <http://dialnet.unirioja.es/servlet/revista?codigo=10602>

³⁹ Ipmark, Información de publicidad y marketing, available at <http://dialnet.unirioja.es/servlet/revista?codigo=10624>



and Visual tries to be a spectator and witness of this evolution. It was born in 1989. With two-monthly character, in a strict way it might be said that its object of attention is the visual communication.

Graphical design, photography, illustration, audio-visual, advertising, multimedia, art, are all of them the disciplines that shape the panorama of our visual culture, and this is precisely the intention of the magazine: the presentation and analysis of the communicative elements, the reflection of the evolution experienced by trends and its opinion on all these aspects.

6. Advertising and Public Relations Websites⁴⁰

6.1. El Programa de la Publicidad (www.programapublicidad.com)

It is an important website around a radio programme on Spanish advertising broadcast by *Gestionaradio* (CORNERED) every day at 1:05 p.m. It presents the most relevant news in the world of advertising, communication and marketing. In its 11th year of broadcast emission, the programme has a web site (programapublicidad.com) where programmes are kept in the format of podcasts. There is also a daily newsletter you can subscribe to.

6.2. Publipro (publi.pro)

Previously known as **publi.tv**, **publi.pro** is a unique, fully visual site, without analyses, reviews or explanations, just meant to view advertising campaigns from all over the world, full up with ideas to be discovered and inspiration to be enjoyed with the best campaigns. A must!

6.3. Marketing Directo: el portal de la Publicidad y el Marketing (www.marketingdirecto.com)

Marketing Directo started as a portal for advertising and marketing in 1999. Its headquarters are in Madrid. It has got loads of information about agencies, advertisers, digital, e-mail marketing, social media, trends or events, as well as multimedia material (videos, campaigns, spots, podcasts), and even a glossary of terms. Essential Spanish website.

6.4. Marketing Data-Red (MDR) (www.data-red.com)

It is one of the most important portals of marketing, advertising, promotion and media in Spain. It provides information directed especially to people who work in these areas.

6.5. Ad Forum (es.adforum.com)

AdForum.com is a supplier of information centred on the industry of global advertising. Maydream Inc. is the French company that founded the project in 1999. Also, it is present in the United States and operates in New York metropolitan area, Paris and London. The bigger markets of advertising, top festivals and the best advertising consultants, more than 20,000 agencies and 150,000 ads (TV, printed, interactive, etc...) can be found on this website.

⁴⁰ All these websites have Social Media presence in the form of Facebook pages and Twitter mostly, and you can join or subscribe to these pages to be updated and well-informed.



6.6. Portal Publicitario (portalpublicitario.com)

It is an Argentinian portal with information referred to advertising in the MERCOSUR area, a sub-regional bloc comprising Argentina, Brazil, Paraguay, Uruguay and Venezuela, that was established in 1991 by the *Treaty of Asunción*.

6.7. AdLatina (www.adlatina.com)

It started ten years ago with the magazine *Ad.Hoc* and in the last three years it has become absolute leader in the field of communication, the sector of advertising business in Latin America. It has a bank of campaigns with more than 20,000 adverts and a directory that concentrates information of agencies, suppliers, festivals and prizes, among other services. Its current director is Jorge Martínez.

6.8. Latinspots (www.latinspots.com)

This website expresses its intention of attending current needs for the advertising market, so that students and professionals of all Latin America can keep informed. It offers contents of specific services linked to the area of advertising, communication, Internet, marketing and entertainment. It is a dynamic reference and it has turned into the leader of opinion of the advertising Latin American market. The website contains lots of resources and information and the most visited sections are: *LatinTV*, *Para Destacar*, *Tendencias*, *El Clandestino*, *Directorio&Galería* and *El Buscador*.

6.9. Institute for Public Relations (www.instituteforpr.org)

Founded in 1956, The *Institute for Public Relations* (IPR) is an independent non-profit foundation dedicated to the science beneath the art of public relations. It contains information about research, events and awards in the area of Public Relations as well as a blog with trending contents.

6.10. Portal de la Comunicación InCom-UAB (www.portalcomunicacion.com)

The Portal of Communication of the Institute of Communication of the Universitat Autònoma de Barcelona UAB (InCom-UAB), was launched in March, 2001. It offers information and documentation specialised in the different areas of communication, oriented to researchers, students and professionals of Communication, especially in the areas of Latin America, Spain and Catalonia. Academic resources, dossiers and lessons on advertising of special interest and value.

6.11. World Advertising Research Center (www.warc.com)

Warc is a comprehensive and international service (its Head Office is in London, UK; there are also two international offices in Singapore and in Washington, USA). It includes the latest industry thinking, award-winning effectiveness case studies, and rigorous research in the fast-moving communications world. It contains three main sources of content:



- material produced by Warc's dedicated researchers and correspondents worldwide,
- showcase content from over 50 leading partners around the world,
- publishings produced with other organisations, including *Market Leader*, *the Journal of Advertising Research*, *International Journal of Advertising* and the *International Journal of Market Research*.

Their recommended cases are highly valuable, showing how leading brands achieve key marketing objectives. Each report focuses on a specific industry sector, and summarises relevant campaign case studies.

7. Archives

7.1. Emergence of Advertising in America (library.duke.edu/digitalcollections/eaaf/)

The Emergence of Advertising in America: 1850-1920 (EAA) presents over 9,000 images, with database information, relating to the early history of advertising in the United States. The materials, drawn from the David M. Rubenstein Rare Book & Manuscript Library at Duke University, provide a significant and informative perspective on the early evolution of this most ubiquitous feature of modern American business and culture.

Emergence of Advertising in America presents over 9,000 images relating to the early history of advertising in the United States. The materials, drawn from the Rare Book, Manuscript, and Special Collections Library at Duke University, include cookbooks, photographs of billboards, print advertisements, trade cards, calendars, almanacs, and leaflets for a multitude of products. Together, they illuminate the early evolution of this most ubiquitous feature of modern American business and culture.

7.2. Advertising Archives (advertisingarchives.co.uk)

The Advertising Archives were established in 1990 by Larry and Suzanne Viner and is the largest and most comprehensive resource of its kind in Europe.

Larry Viner began his career as an actor and TV presenter and ran a wide variety of businesses before dedicating himself to *The Advertising Archives* full time. He is a member of BAFTA and the NUJ, a valuation expert for many of the major London auction houses and frequently appears on the radio and TV speaking on ephemera-related subjects. Larry sits on the panel of the *Advertising Slogan Hall of Fame*, alongside David Abbott, Winston Fletcher and Dave Trott. As a member of The Royal Albert Hall, he has also advised on the setting up and digitalisation of the historic Albert Hall Archive.

Suzanne Viner was a buyer for Marks and Spencer before starting *The Advertising Archives* in 1990. She speaks French, German, Spanish and Italian and is a member of the NUJ.

Their collection spans the years from the mid-19th Century to the present day. Image types include: British & American Press adverts, British and American magazine covers and artwork including story illustrations, rare French and Spanish magazine art, British TV advertising



stills⁴¹, mail order catalogues, posters, postcards, menus, theatre programmes and other ephemera⁴² and a wide selection of vintage magazines

All of the iconic 20th century brands are represented in the collection including Coca-Cola, Heinz, Nike, Apple, Cadillac, and Chanel as well as thousands of lesser known brands and marketing failures. The collection also features magazine cover artwork and includes the work of famous illustrators such as Norman Rockwell and J.C. Leyendecker. These and many other illustrators were also commissioned to do adverts. The Advertising Archives also holds the largest collection of *La Vie Parisienne* magazine artwork in the UK.

7.3. The History of Advertising Trust Archive (www.hatads.org.uk)

HAT (History of Advertising Trust) started in 1974 when a small group within the advertising industry decided that its heritage needed to be preserved and that the study of UK advertising should be encouraged and subsidised. As a result, *The History of Advertising Trust* was founded in 1976. It is now the most comprehensive archive of British advertising and marketing communications in the world. Regarded by many as a national treasure, the memory bank of UK brands and advertising industry expertise, HAT provides the stories behind famous brands, the ideas and research that led to their development, changing image and campaign messages.

All of the iconic 20th century brands are represented in the collection including Coca-Cola.

☺ *The History of Advertising Trust* – Free teaching resources online provides valuable content for creative classroom activities and ideas that can be relevant and meaningful for professionals of advertising. You can access and get precious information about *Hovis*, the famous bread brand, the use of comedy and humour in advertising, blockbuster Christmas campaigns, how the use of celebrities make advertising more effective and many other inspiring topics.

7.4. Ads of the world (adsoftheworld.com)

AdsoftheWorld.com (2009-2014) is the world's largest advertising American archive & community showcasing creative adverts. It is owned by *WebMediaBrands*, a leading global provider in the United States of America of news, original information, career web sites and events for information.

One of the most attractive sections in the menu of its website is Ads of the World Awards, highlighting the most popular advertising works in the world of advertising that have been selected through a combination of ratings, comments, re-tweets, Facebook submissions and other social media factors. Given the highly critical nature of the community, some say it is harder to win an AotW Award (Ads of the World Award) than any other famous advertising award. It is quite worth a view!

7.5. La historia de la publicidad (www.lahistoriadelapublicidad.com)

⁴¹ A still photograph, especially one taken from a scene of a movie and used for promotional purposes.

⁴² **Ephemera** (singular: **ephemeron**) is any transitory written or printed matter not meant to be retained or preserved. The word derives from the Greek, meaning things lasting no more than a day. Some collectible ephemera are advertising trade cards, airsickness bags, bookmarks, catalogues, and greeting cards.



It is a website recommended by AEACP, the Spanish Association of Advertising Communication Agencies, and maintained by Sergio Rodríguez, born in Menorca in 1973, who tries to rescue the best of advertising creativity of all times and its contribution to the popular culture. Under Creative Commons Licence, it tells the history of advertising from the beginning. The most outstanding feature of this site is the great richness of links as well as the effort to organise, classify and keep the legacy of advertising.

7.6. Les Arts Décoratifs

(www.lesartsdecoratifs.fr/francais/publicite/collections97/l-univers-delapublicite/)

Les Arts Décoratifs is a private, non-profit museum of decorative arts located in Paris, France. The museum dates back to 1882, when collectors with an interest in the applied arts formed the initial organisation. For many years it has been known as the Union Centrale des Arts décoratifs (UCAD), but in December 2004 it was renamed Les Arts Decoratifs. As to Publicité, it contains 100,000 historical and contemporary posters as well as over 20,000 French and foreign advertising films from the 1930s to the present day; radio commercials, promotional objects, packaging, etc.

7.7. Museo Virtual de Arte Publicitario (MUVAP) (cvc.cervantes.es/artes/muvap/)

The Virtual Museum of Advertising Art (MUVAP) has been created by the General Association of Advertising Companies (AGEP) and the Cervantes Institute, through its Virtual Cervantes Centre with the aim of promoting the knowledge of art in advertising graphic design, photograph illustration, cinema, music, radio and other media and formats. The MUVAP is the result of an agreement of collaboration between these two entities created to start a project without any spatial or temporary limitations that might gather the most out-standing pieces of Spanish creativity.

8. Reference Works

Reference works include dictionaries, thesauruses, encyclopedias, almanacs, bibliographies and catalogues. They are used mainly to confirm facts and are available in electronic form that can be obtained as software packages or online through the Internet. The writing style in these works is informative. They are compiled by a team of contributors whose work is coordinated by editors. Indexes are commonly provided in many types of reference books.

8.1. Dictionaries of Marketing and Advertising

There is a wide range of dictionaries covering the subjects of Marketing and Advertising:

Mixmarketing-online.com

Marketing.Data-Red

Adlatina

Esomar

Lexicool-Publicidad

Financial Times Lexicon



All of them can be accessed from the list of selected resources of Marketing and Advertising by the Library of Economics at the University of Alicante⁴³.

8.2. Directories

They are guides or lists grouped and arranged systematically by categories and subcategories that register the addresses and a small description of the different sites or resources available on the Internet. Two good examples of directories are *BUBL Link* (bubl.ac.uk) and *Dmoz* (www.dmoz.org).

BUBL Link is a catalogue of resources that have been selected on the Internet covering all the areas of academic knowledge. It is a multidisciplinary directory of existing resources of information of academic interest that can be used freely by any Internet user. It is not very extensive, since its aim is to provide the most useful website addresses in the selected topics that have been evaluated by librarians to be essential in the search of important information in a topic.

The Open Directory Project (ODP), also known as *DMoz* (for directory.mozilla.org his name of original domain) started in 1998 and it is a collaborative multilingual project, in which voluntary publishers list and categorise links to web pages. Any person can suggest a link in a certain category, which then has to be approved by a publisher.

8.3. A Guide to Selected Resources of Marketing and Advertising (<http://aplicacionesua.cpd.ua.es/catalogaxxi/C10073PPESII1/S138162/P136647NN1/CAT/INDEX.HTML>)

This Guide was selected by the Library of Economics at the University of Alicante Library and it is a selected list of resources that are essential to students of Advertising and Public Relations. It is worth having a close look at every resource to get to know what can be located there.

8.4. Wikipedia (en.wikipedia.org)

Wikipedia is a reality nowadays that does work as one of the best sources for handy knowledge⁴⁴. Combining the effort of voluntary writers, a group of enthusiasts, self-organised publishers, redefined the classic concept of encyclopedia and have and are now creating the most used source of reference. It is, at the same time, content and people (Saorín, 2013), and it offers standards for good quality.

Wikipedia is an unforeseen miracle and to understand the way such an efficient, low-cost collaborative company works is a great challenge nowadays (Lafuente, 2011).

There are two interesting paths that still need to be developed in the spread of *Wikipedia* knowledge: the GLAM project (Galleries, Libraries, Archives and Museums), seeking to foster

⁴³ Guía Temática de recursos de Marketing y Publicidad de la Universidad de Alicante, available at <http://aplicacionesua.cpd.ua.es/catalogaxxi/C10073PPESII1/S138162/P136647NN1/CAT/INDEX.HTML>

⁴⁴ readily, accessible, useful and/or convenient



collaboration of this type of institutions with *Wikipedia*, and the right use of *Wikipedia* in universities, which should be encouraged, since *Wikipedia* has been disdainfully treated by academic institutions so far.

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